

ENVIRONMENTAL JOURNALISM CURRICULUM AS AN IMPERATIVE
OF DEMOCRACY: A PHILOSOPHICAL EXPLORATION

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Economic retrenchment, social shifts, and technological changes endanger journalism's democratic role. Journalism education faces parallel threats. I review the state of journalism and education, linking the crisis to society's loss of story, framed philosophically by the Dewey-critical theory split over journalism and power. I explore the potential for renewing journalism and education with Carey's ritual model and Postman's restoration of storytelling. I then summarize existing major academic programs and suggest a new interdisciplinary curriculum for environmental journalism, a specialty well suited to experimental, democracy-centered education. The curriculum uses as pedagogy active and conversational learning and reflection. A graduate introductory course is detailed, followed by additional suggested classes that could form the basis of a graduate certificate program or, with further expansion, a graduate degree concentration.

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CHAPTER 1

INTRODUCTION / STATEMENT OF PROBLEM

In the post-World War II era, when new power arrangements were coming into their own, new social forces were emerging, and America worried that freedom of information might mean losing its nuclear monopoly, Alexander Meiklejohn wrote a forceful treatise titled *Free Speech and its Relation to Self-Government*. His argument, Meiklejohn wrote, "springs from a strong conviction that a primary task of American education is to arouse and cultivate, in all the members of the body politic, a desire to understand what our national plan of government is" (Meiklejohn, 1948, p. ix).

The Accrediting Council on Education in Journalism and Mass Communication (ACEJMC), the accreditation body for college journalism programs, embraces that view but also broadens it to consider the public an actor in government. The council gives journalism, and by extension journalism education, an indispensable role:

The mission of journalism and mass communications professions in a democratic society is to inform, to enlighten and to champion freedom of speech and press. These professions seek to enable people to fulfill their responsibilities as citizens who mean to govern themselves (ACEJMC, 2007).

Others, however, suggest that the lofty goal of a citizen- and journalist-empowering education goes unmet in the face of budgetary constraints, institutional lethargy, and political pressures. Gans (2004) contends that many college journalism

programs nod toward the noble view but are timid about carrying it out. Fearing to upset public officials, media owners, or other powerful interests, Gans maintains, they tip their course offerings and research toward the bland. Working journalists falter as well, Gans writes, embracing their mission as holy, but putting it aside almost daily when deadlines, workloads, or uninterested editors or owners get in the way.

Today the mission statements remain, but new challenges are chiseling away at journalism's historical democratic role. The diversification of American culture demands a type of journalism that recognizes the legitimacy and contributions of different viewpoints, but most news reports still include a narrow range of predictable voices. The diffusion of political power that accompanies the new cultural diversity also mandates new ideas of how to report on public affairs, but again, dominant practices are not up to the challenge; today the most vigorous debate on an important topic might be taking place in cyberspace instead of at City Hall, but the reporter is still assigned to sit in the council chambers waiting for official news. At the same time, digital technology has dramatically altered -- or *is destroying*, say Kovach and Rosenstiel (2001) -- the economic structures that journalism education's professional training function evolved to serve, but the academic response to date has been incomplete. Many journalism programs have responded with new course offerings that emphasize cross-platform training, moving away from newspapering toward a multimedia future. These changes are appropriate and necessary to the continued vibrancy of journalism and the continued employability of new graduates. However, the

shift from one type of job skills training to another is not sufficient in itself to guarantee the fulfillment of journalism's role as a steward of democracy. In a new age in which digital technology can magnify every voice, the journalist can no longer assume an authoritative position or an interested audience. It follows that the journalist's role in democracy must evolve in a manner that acknowledges, enhances, and actually benefits from the atomization of mass communication, at the same time creating new forms that strengthen public confidence in and support for the traditions of a free press.

An accompanying but seldom recognized challenge to contemporary journalism education derives from the erosion of the acceptance of universal truth, the *grand narrative* of postmodern scorn. When the dominant assumption is that elites dictate truth, the journalist needs only to receive that truth and disseminate it. However, the journalist who recognizes that there are a billion truths, each constructed from individual experience and processed through cultural filters and amplifiers, yet each claiming an equal voice in the new digital public square, is hard pressed to decide which handful to include in a story of only a few hundred words. An awareness of how individuals and institutions construct their own worlds can enrich reporting by helping the journalist look for signs of selection, construction, and framing in what would otherwise be treated as factual statements by authority figures. Those discoveries can themselves become the subject of a story, deepening public understanding of how society works. Given such new duties for the journalist, the journalism educator needs to discover a way through this uncertain territory of construction versus accepted fact

and pass it on to students and professionals. The lack of such a synthesis, I argue, and not the changing technological or economic landscape or the *chi square/green eyeshades* split, is the critical challenge to journalism education's democratic role. Often, however, instead of synthesis, the student finds silos, even within the department. While mass communications research explores the ways in which cultural and individual differences influence perceptions of reality, journalistic job training continues to emphasize the reporting of facts. Simply put, the skills trainer teaches that the world is a rational and organized place that can be described objectively (or at least fairly) as long as *both sides* are quoted, but the researcher knows that human events comprise a maelstrom of conflicting realities, that there are an unlimited number of sides to every story, and that writing the story is itself a culturally influenced act of construction.

Using environmental journalism as a platform, I explore the potential for establishing a new approach to journalism education that emphasizes not only the teaching of new job skills for rapidly changing commercial media, but also the pursuit of three broader goals: (1) creating a new model of journalism's role in democracy during an era of diversified culture, diffused political and social power, and decentralized communications; (2) discovering new ways of reconciling the journalistic pursuit of fact and the realization that some presumed facts might be political or cultural constructs; and (3) adapting journalism curricula to these new realities.

I first examine the state of news and of journalism education, arguing that the

collapse of monolithic media power in light of technological and social changes requires a new approach to education for journalism's democratic role. To establish a theoretical context, I compare the democratic goals of the two early approaches to journalism education, finding that the Bleyer (Wisconsin) model reflected the contemporaneous Progressive movement's elitist political approach, while the Williams (Missouri) model seemed more closely attuned to Populism and the diffusion of political power among new democratic participants. I describe the concerns that had emerged by 1938 over a supposed overemphasis on job skills training under the Williams model and follow those concerns to today's debates over the mission and academic centrality of mass communications education. I find that while today the practical differences between programs deriving from the Bleyer and Williams models might be slight, their philosophical frameworks remain distinct.

I then place the relationship between journalism and democracy in its broader context, concluding that the predominant view of press freedom has been communitarian, emphasizing journalism's social and institutional role, rather than utilitarian, which would make individual freedom of expression the first principle. The lack of emphasis on utilitarian values, I find, has undermined public support for the First Amendment by suggesting to the public that press freedom belongs only to media companies. At the same time, I find that the communitarian view has yielded great public benefits, shown by the first environmental journalism that emerged in the late nineteenth and early twentieth centuries. I detect in the pioneering investigative works

of Bly, Sinclair (although in a fictional setting) and Riis some important themes and techniques that went into hiding for several decades but then reappeared in the late 1950s and early 1960s, culminating in Carson's 1962 book, *Silent Spring*. I describe Carson's journalistic method and her explicit appeals to moral and ethical considerations, both of which lay outside the norms of neutral reporting. I delineate the lasting impact that Carson and her predecessors had on the development of environmental journalism as a democratically oriented, morally based reporting genre, but also describe how tenuous has been the commercial media's commitment to that type of enterprise.

I then argue that for today, a renewal of that democratic mission requires that journalists and journalism educators adapt to the modern world of diffused social and political power structures and diversified cultural views, a more fundamental change than simply training students in new content delivery systems. I tie this need to the loss of the media's supposed monopoly on truth, a monopoly that derived from the collapse of faith as the basis of human knowledge and the attempt to make facts, expressed as scientific positivism, the new foundation of all understanding. Journalism's attempt to embrace that belief in the omnipotence of facts, with intellectual links to the Chicago School's empirical model of sociology, eventually led to problems when postmodernism forced the recognition that facts can be fluid. I frame the tension between journalistic fact and cultural uncertainty in terms of Dewey's optimism that newspapers could serve as a unifying force, thus fostering active democratic involvement, versus critical theory's

contention that the media are the ruling class's tools for continued economic domination. In a contemporary setting, I find the same tension reflected in civic or public journalism's attempts to serve as a consensus-builder and the view of its critics that civic journalism is merely a stealthy exercise in maintaining the status quo.

With the factual worldview in dispute, and with the Dewey-critical theory split resulting in continuing theoretical deadlock, I next seek a new path for journalism as a democratic imperative via Carey's ritual theory and Postman's call for the restoration of story. Carey (1989) contends that producers and consumers of media messages are engaging in ritualistic practices that are important for their own sake. His cultural studies approach allows the journalist to acknowledge the myriad, culturally constructed versions of reality without requiring a problematic postmodern denial of the existence of all facts. Postman (1993) takes Carey a step further, arguing for the centrality of story as the organizing principle of a healthy society and contending that any culture loses its way when it sacrifices its myths on an altar of facts. Faith, science, and journalism, Postman maintains, are stories first and lose their power when they claim an indisputable basis in fact. A journalism that acknowledges the storytelling element of every issue, Postman says, is one that can resonate with humanity.

The medium for my attempt at a practical synthesis of the Carey-Postman theories of ritual and story and the continuing need for factual journalism is a curriculum in environmental journalism. The idea of training journalists to approach environmental journalism from a cultural as well as a scientific or policy viewpoint has a

firm basis in emerging curricular theories that deal with environmental education in general. Jensen (2004), for example, finds that a growing recognition of the social and cultural aspects of environmental issues is driving a search for new educational approaches.

The potential benefits of such a change are legion. When journalists understand the social aspects of science, their ability to reach the audience in a personal and compelling way can only be enhanced. Democracy benefits as well when citizens more fully understand the roles of the public, policymakers, and scientists in environmental decision-making. Environmental science and the academy in general also have a stake in the improvement of journalism. The application of journalism's worldview, in which breadth of knowledge and bold inquiry are valued, to the often too-narrow focus of the traditional disciplines also could be a powerful force for scholarly renewal. The Carey-Postman theories of ritual and story, which are propelled by an apparently unshakable optimism, are fitting partners in this renewal.

In keeping with this theoretical overview and with contemporary views of interdisciplinarity, which emphasize and embrace the lack of a set of prescribed methods for interdisciplinary teaching (Klein, 1999), the proposed curriculum is developed as a suggestion rather than as a script, a standard, or a benchmark. Szostak's comprehensive curricular reform is an appropriate model, since its goal is to "embrace complexity ... [in ways that] enhances our ability and will to cope with the complexity of our times" (p. 45). In this case, the curriculum incorporates elements of

journalism, literature, science, philosophy, sociology, political science, and other fields in the pursuit of the complete synthesis that Wasserstrom (2006) calls "free-range interdisciplinarity," in which the scholars "are so eclectic that people aren't sure of their disciplinary homes" (p. B5). The goal is for the student to understand the multifaceted and complex positions of the environment and environmental journalism in contemporary society, and to gain intellectual tools for real-world reporting.

Three factors make environmental journalism an appropriate laboratory. First, it encompasses virtually every aspect of contemporary democratic debate, from concerns about transparency and freedom of information to journalism's proper role as a public watchdog. Second, it is one of the most difficult areas of coverage, since it combines rigorous standards of scientific and technical understanding; constant exposure to strongly held and often passionately expressed differences in belief systems; coverage of tough political infighting and, not infrequently, exposure of political corruption; and fundamental issues of social justice. Third, environmental journalism is my own field of specialization, so it is the one in which I am most able to make the assessments that this effort requires.

Finally, it should be noted that praxis could allow a further evolution of a storytelling model of environmental journalism education beyond the exploratory approach presented here. In addition, experience in using the model in environmental journalism could lead to the refinement of basic principles that would allow its use in other areas of journalism education.

CHAPTER 2

LITERATURE REVIEW

The State of News

In 1964, James Reston of *The New York Times* made a pronouncement. "The nineteenth century was the era of the novelist," Reston said. "The twentieth is the era of the journalist" (quoted in Rivers, 1964, p. 10). There can be little doubt that the authoritarian journalist Reston envisioned worked for a newspaper. A photograph in Rivers' book offers explicit assurances of the newspaper's dominance in American society, as well as implicit evidence of the settled nature of society's power structure. The picture shows people on a crowded suburban commuter train. Nearly every person is reading a newspaper. Nearly every person is a white male in a business suit (p. 8).

Economic, technological, and social changes have wrought dramatic and often wrenching transformations of American journalism since Reston's time. Developments in news-gathering methodology, production, and delivery that began progressing on a decadal scale as far back as the advent of the telegraph have advanced in recent years at a pace more closely resembling a yearly or even faster rate of change. Kovach and Rosenstiel (1999) describe the current rate of change as "warp speed" and maintain that valued journalistic standards are falling too quickly for acceptable substitutes to have evolved, either for journalism itself or the society it serves. As a result, the news industry itself has undergone successive waves of structural revolutions in recent years.

In most large American cities, and many midsize ones, the norm a few decades

ago was that two or more daily newspapers, probably locally but separately owned, competed for readers and advertisers. Although the number of newspapers has remained relatively steady, competing daily papers in a city are now rare; 11 cities remain two-newspaper towns only through joint operating agreements in which they merge business departments but maintain independent newsrooms (Newspaper Association of America, 2007). The newspapers that remained after the collapse of competition often reaped great benefits from their monopoly status for some years, as advertisers and readers had no other choice. However, that blue-sky period is over. Newspaper companies are under intense pressure for profit margins and increased share value from the private investors who once provided capital for the companies' growth. Margins that would have pleased most owners and investors in times past are now seen as inadequate and worrisome (Kovach and Rosensteel, 1999; Kovach and Rosensteel, 2001; Cho, Martin, and Laney, 2006). At the same time, daily newspaper readership has plummeted. Daily circulation has dropped every year since 1990; Sunday circulation, every year since 1994. Daily circulation in 2005 was 53,345,043, the lowest in more than 45 years (Newspaper Association of America, 2007). The reactions by newspaper executives have included both a rush to launch new products with low costs and high marketability, and a sustained attack on the cost structures of the older mainstays of the industry. The ranks of reporters, photographers, editors, and others have been cut in order to reduce costs and boost profits. Knight-Ridder, one of the most respected newspaper chains, ceased to exist in 2006; in 2007, Tribune Co.

accepted an \$8.2 billion bid from Sam Zell, a Chicago businessman, who planned to take the company private and was entertaining an offer to sell Tribune's *Los Angeles Times* to Hollywood producer David Geffen (Rainey and Mulligan, 2007). Many newspapers have reduced or eliminated national and international coverage; foreign news is increasingly seen as a commodity that can be outsourced rather than an imperative of an educated public during perilous times.

Many news organizations are seeking cheaper alternatives to employing reporters, with the result that second- or even third-hand information fills space and time without adding to payrolls. Kovach and Rosenstiel (2001) argue that rather than using newsgathering technology to expand coverage, news media have used it to contract it in order to cut costs. "The paradox is that news organizations use expanding technology to chase not more stories but fewer," they write. "The social consequences are obvious. Missing from the larger public square are many of the important concerns facing the nation. These are consigned to a series of smaller media ghettos" (p. 141).

Coverage of the Clinton-Lewinsky scandal illustrated how a frenzy of 24-hour coverage could mask a decline in original journalistic enterprise. A study by the Committee of Concerned Journalists found that in the first six days after the story broke, 41 percent of the reporting consisted of conjecture, opinion, or speculation, while another 12 percent comprised material that had originated with other news organizations, with no independent verification by those retransmitting the material (Kovach and Rosenstiel, 1999, p. 17). The "information revolution," Kovach and

Rosenstiel find, seems in such cases to place no value on the reliability of information as long as the flow of information can be maintained. The change allows the substitution of strength of opinion for soundness of reasoning, and the replacement of quality of discourse with volume of voice (p. 18).

At the same time, changes in the media have both accelerated and been accelerated by societal changes. These include changes in the economics of home and workplace, in the nature of leisure, and in the rapid advancement of digital culture. The expansion of information choice, without considering the quality of that information, has undermined traditional media by introducing competition for the time and attention of readers, viewers, and listeners. Some of the delivery methods might be adding to the attention deficit. Except during coverage of crises, CNN routinely places as many as seven pieces of information on the television screen at once: video footage or live images; the title of a segment; a line identifying the speaker; the name of the current program; the CNN logo; the current time; and the news crawl, a shortened version of a breaking story that moves across the screen, unrelated to the main story occupying most of the screen. The sounds and flashing lights of the digital world seem to have shrunk the collective interest in public affairs and the time and space available for discussion of public issues. The news media then scramble to adapt their products to the changed world, further reinforcing in the public psyche the idea that news is a fluid commodity with no firm foundation. The result is a feedback loop that no one knows how to stop: a distraction culture.

Even as media become all-pervasive, with televisions blaring in airport waiting areas, buses dressed up as rolling advertisements, music beamed into mobile phones, and corporate logos on just about everything, the social structure seems to have become fragmented to the point of atomization (Whitby and Whitby, 1990). Rather than soothing the audience, the ubiquitous media have stirred in the mind a certain sense of failure to achieve by way of failing to acquire (products, status, sex, love). We are awash not in reassurances, but rather in "the language and images of stereotypes and wishes" (Rivers, Peterson, and Jensen, 1971, p. 296).

Gans (2004) says that since the need for information is endless, government information offices are happy to provide an endless supply of one-sided news. The result is a top-down orientation of most national news copy. Bottom-up reporting, communicating to the power structures the concerns of the masses, is rare. The mutual backslapping between power and the press might actually have hobbled democracy instead of giving it a leg up. Part and parcel of the media's unseemly dalliance with the economic elite, Whitby and Whitby (1990) contend, is its failure to offer a critique of technology, even as technology has added, by accelerating economic disruption among workers, to the "social alienation and angst" of the modern age (p. 122). This is the same social problem, it is worth noting, that John Dewey and his followers thought the newspaper might ameliorate (Whitby and Whitby, 1990). Some recent experiences, however, counter the pessimism over technology's erosion of a democratically active media. The Internet has allowed bloggers to serve not only as commentators, but also

in some cases as reporters; the technological tools have expanded the number of eyes and ears watching public affairs. Furthermore, television was the vital actor in raising the alarm about New Orleans' flooding after Hurricane Katrina. While the federal government seemed to be dallying, processing paperwork, and downplaying the magnitude of the emergency, television was showing live images of desperate people waving from rooftops and victims' bodies floating down city streets – tragedies of which some high-ranking officials were apparently unaware. The coverage pressed the government into action and rekindled, for a while at least, a long-neglected national discussion of race and poverty. The flood coverage showed technology's potential to galvanize the public on a critical issue. Soon enough, however, media attention seemed to return to the latest celebrity scandal, reflecting media owners' belief that the public's attention span is limited and that important issues will sell only to the extent that they offer compelling video.

Hallin (1985) traces the widening disconnection between the public and politics to journalism's attempt to professionalize itself, which, he writes, "narrows discussions to questions of technique." He concludes: "The American news media may, in fact, communicate to the public a conception of politics and of their own political role that strongly discourage active political involvement" (p. 140).

Inevitably, this diminution of traditional journalism's scale and scope has been cast largely as problem affect primarily journalists and the commercial media organizations that employ them. How can newspapers stanch circulation losses and

capture new readers or move into new media? How can broadcast news regain audience share in a fragmented television media market? Will publicly held news organizations be able to resist investors' demands for unsustainable profit margins? How can journalism survive as a commercially viable provider of facts against an assault by irresponsible bloggers and slick peddlers of opinion?

The critical issue for society, however, might not be how existing media structures will fare, but rather how journalism's duties in support of democratic principles will be carried out in a new media world. Any list of those duties would include reporting, investigating, exposing, and analyzing topics of importance to the public welfare. The list might also include advocating and speaking out for open government, freedom of information, and freedom of expression. Newspaper executives have a long history of expressing public optimism about their business prospects and denying that their consolidation and contraction of newsgathering were trouble signs for democracy (Liebling, 1975). Today, however, the denials sound particularly hollow. Kovach and Rosenstiel (2001) contend that "corporations assume an obligation broader than that of shareholders when they incorporate journalism into their portfolios" (p. 65). They maintain that "a commitment to citizens is more than professional egoism. It is the implied covenant with the public ... thus people who gather news are not like employees of other companies. They have a social obligation that can actually override their employers' immediate interests at times, and yet this obligation is the source of their employers' financial success" (p. 52).

Journalism Education and the Democratic Imperative

The interdependence between education and the welfare of democracy is a given in most American thought. Reeher and Cammarano (1997) put it plainly: "There is no division between education and citizenship. Instead, they are part and parcel of the same thing: the pursuit of informed, critical, and active citizens" (p. 15). According to Barber (1997), "In a democracy where freedom comes first – educators and politicians alike, take notice – the first priority of education must be the apprenticeship of liberty" (p. xiv).

Much of the literature on education and democracy deals with how to train students as participants in public processes. Hochschild and Scovronick (2002) list the key practices to be taught as "following properly designated procedures, negotiating rather than using violence to secure what you want, [and] respecting those who disagree" (7). Schapiro (1999) makes the same point, arguing that society must do better at showing students "how to be engaged and active participants in our communities" (280). Cardinal John Henry Newman, who was rector of the Catholic University in Dublin in 1854, described this vital interplay of ideas in "Discourse IV: Liberal Knowledge, Its Own Reward":

I have said that all branches of knowledge are connected together,
because the subject-matter of knowledge is intimately united in itself, as
being the great Creator and His work. Hence it is that the sciences into
which our knowledge may be said to be cast have multiplied bearings one

on another, and an internal sympathy, and admit, or rather demand,
comparison and adjustment. (1961, p. 80)

Newman was no abolisher of disciplines; rather, he envisioned "an assemblage of learned men, zealous for their own sciences, and rivals of each other ... brought, by familiar intercourse and for the sake of intellectual peace, to adjust together the claims and relations of their respective subjects of investigation" (p. 82)

The first major media endowment to start a school of journalism, Joseph Pulitzer's 1892 offer to Columbia University, was consistent with Newman's viewpoint, since it was "motivated by a belief in the power of the press and its key role in a democratic society" (Sloan, 1990, p. 7). Pulitzer himself wrote that his "chief end ... was the welfare of the Republic. It will be the object of the college to make better journalists, who will make better newspapers, which will better serve the public." (quoted in Sloan, 1990, p. 8). Willard G. Bleyer took up the challenge of democratic education in journalism at the University of Wisconsin, where, starting with one course in 1905, he "built a curriculum aimed at helping students understand how the press worked in a democratic society. ... He wanted them to help make conditions in both the press and society better" (Wisconsin, 2007; Sloan, 1990, p. 10).

Bleyer's emphasis on liberal education reflected two centuries of Western tradition that held that a person well rounded in the fundamentals of ideas would become a full participant in the development of new ideas. That person would be best equipped to discern good ideas from bad and to communicate that distinction to the

public. The contemporaneous political parallel was the Progressive movement, with its drive to kick the crooks and patronage hacks out of City Hall and replace them with professional managers who would be above ward politics and would be insulated from popular whim. The immediately preceding half-century had provided strong evidence of the power of ideas and liberal education to change society's view of itself. Darwin, the gentleman scholar with little formal technical training, had used a traditional approach (combining past knowledge with fresh perspectives) to synthesize a radical worldview that shifted the stonework of humanity, religion, and, by ultimate logical extension, democracy. Certainly journalists, responsible for enlightening the public about such seismic shocks and their implications, should be no less well equipped to explain ideas than those who generated them.

Nonetheless, it was Walter Williams' University of Missouri model, established in 1908 with an emphasis on training in professional skills, that came to predominate journalism programs. By improving the abilities of journalists, schools of journalism would make the watchdogs of democracy better at keeping watch. Williams' more direct, action-oriented approach emphasized the need for technical competence in communicating events in ever-faster ways, a reflection of the rapid acceleration of national life in the new century. Communication technology was advancing, slashing perceptions of distance and starting the process of breaking down distinctions between groups and regions. This was also an age in which traditional American social associations were beginning to change. Southern agricultural whites, for example, were

increasingly becoming industrial workers, a trend that contributed during this period to the reaction of the Agrarian movement and its neo-Jeffersonian attempt to reclaim rural political primacy. Meanwhile, massive numbers of Southern rural blacks were becoming Northern urban residents, leading to profound changes in educational opportunities and the increased potential for black political power. Mass migration from British Isles, continental Europe, and Asia was adding millions of people and new cultural influences to American cities. The sheer weight of the new Americans' numbers would quickly breach most barriers to their participation in the nation's political life and change forever the nation's social and cultural alignments. The Penny Press proved that the urban newcomers – that is, the underclass – were now an economic force; inevitably, they would become a political force, and their education in public affairs by the newspapers would play a role. Seen from this perspective, if Bleyer's liberal-arts approach was most closely aligned with Progressivism, in which those who understand great ideas are entrusted to protect the public, Williams' communication-of-facts concept seems more akin to Populism, insofar as it both reflected and catalyzed the democratization of journalism and society and the collapse of old power structures.

By 1938, however, some feared that professional skills training had become dominant over the liberal arts and the teaching of democratic duties. Edward Doan, president of the American Association of Teachers of Journalism, recognized the problem of a growing alienation between the press and public and a disturbing and unquestioning chumminess between the press and journalism schools. He called for a

renewed emphasis within journalism education on the press's role as a vital institution of democracy instead of as a vocational school. Instead, the opposite happened. "Rather than increasing its role as a critic of the press," Sloan writes, "journalism education became its defender. Rather than helping to improve journalism, it contributed to the status quo" (p. 12). Nearly a half-century later, the Project on the Future of Education's 1984 Oregon Report on curricular change in journalism education repeated the Sloan critique and called for a bold move away from job training and sequence-track approach and toward a more holistic and unified model. The effort had the same outcome as Doan's in 1938. Three years after the Oregon Report, however, journalism schools had responded by doing just the opposite (Dickson, 1992, p. 27).

To the extent that journalism education continues to see as its primary mission the teaching of accepted and expected job skills that media owners demand, Sloan contends, the status quo still rules. He argues that vast weight of undergraduate journalism education continues to emphasize how to get a job in journalism instead of why it is important to democracy that the best students do so. Kraeplin and Criado (2005), for example, define the desired outcome of convergence training as the creation of "the content and delivery system" for a new media era -- "not because it is fashionable, but because it's the way our students should be learning to prepare them for tomorrow's media environment" (p. 55). This approach may conform to the economic demands of the times, but it also substitutes industrial language (*content and delivery system*) for language freighted with democratic significance (*news*). Absent is

any indication of what content should be delivered or how the student should think about the interaction of new media and democracy.

How, then, did it happen that education in journalism, which ought to be the most inclusive and broad-minded of disciplines, came to suffer from schism and a form of reductionism? Kathleen Hansen, director of the Minnesota Journalism Center at the University of Minnesota, traces the problem to the differing philosophies of Bleyer and Williams. She suggests a synthesis aimed at developing "values of independent inquiry, informal decision-making, and high-minded adherence to the public good" (2005, p. 134).

In a practical sense, however, accreditation standards have smoothed out the differences to the point where the requirements of a Bleyer- or a Williams-derived program vary only slightly. At the University of Wisconsin at Madison, for example, Bleyer's home campus, an undergraduate journalism student must take a minimum of 30 hours of journalism and at least 80 hours of other courses, including the typical liberal-arts array of English, science, social sciences, and humanities (University of Wisconsin, 2007). At Williams' home, the University of Missouri at Columbia, today's undergraduate takes 40 hours of journalism and 83 hours of other subjects, again with liberal-arts requirements resembling those of most programs of study (University of Missouri, 2007).

It follows, then, that if the actual classroom requirements of the two models are similar, the split that worries Sloan, Hansen, the Oregon Report authors and others

must have another origin. The crucial difference might be found not in each program's degree plan, but in its subtext – in other words, in how it constructs and frames its educational mission, and in how that framing might influence its choice of courses and faculty and, in turn, its students' worldviews.

The Wisconsin and Missouri programs describe themselves in ways that shed light on their different orientations. Wisconsin's School of Journalism and Mass Communication invokes Bleyer's emphasis on liberal arts and communication research:

Bleyer insisted that the professional and the academic go in tandem, their goals and insights supporting and contributing to each other. The School of Journalism and Mass Communication is far more than Bleyer's lengthened shadow 65 years after his death, yet we feel his influence today in the shape of our program and our twin missions of teaching and research.

Long rooted in the College of Letters and Science, the school embraces a broad liberal arts education as the first professional requirement for future communicators. Our graduates need first to be at home in a complex world, so our training demands social and natural sciences and the humanities as an academic base (Wisconsin, 2007). Despite Missouri's similar liberal arts requirements, its School of Journalism describes itself almost exclusively as a professional training organization:

Williams, first dean of the school, believed that journalism education

should be professionalized and provided at a university. ... Today, some of the best journalists in the world have learned their profession through the Missouri Method, which provides practical hands-on training in real-world media and strategic communication agencies. Top editors, reporters and other executives say Missouri graduates are among the best prepared to work and contribute to the organization from their first day on the job.

... Perhaps Williams' greatest achievement was his establishment of the school around an all-important principle: The best way to learn about journalism and advertising is to practice them (Missouri, 2007).

An example from Missouri suggests that the differences between the approaches run deeper than the language of mission statements. Thorson (2005) cites a failed effort at the Missouri School of Journalism to use the lessons of sociological research, a high priority for Bleyer and his followers, to inform reportorial training by turning crime reporting (coverage of crimes as discrete events) into a form of public health reporting (coverage of trends and the sociology of crime). The experiment failed, Thorson writes, because the school's instructional framework, steeped in the application of existing journalistic practice, was incapable of converting the idea into action. "Our educational culture was not set up to pass this research [on crime as a public health issue] to students and have it affect how they were taught reporting and editing," Thorson writes. "Thus, the 'train-the-workforce' culture carried with it intrinsic barriers to effective linking of theory and practice" (p. 19).

It seems, therefore, that accreditation standards have not brought about the hybridizing of reporting and research, resulting in a curriculum that has failed to persuade the rest of the campus and the society at large that journalism education has a value to anyone other than journalism majors (Cohen, 2005; Becker, 2005). It is hard to imagine that the study of communication, the fundamental fabric of culture, has earned so little respect. Cooper (1993) argues that communication is the central organizing element of all human knowledge, whether universal, academic, or pragmatic. "Even to criticize this hypothesis," he writes, "requires communication and thus subverts the critic to communication's process, laws, and study" (p. 85). Carter (1995), however, says that other academics view mass communication as, at the most, "a social science of sorts" (p. 5), unworthy precisely because it is imprecise. And yet the best qualities of informed thinking about communication ought to inform every other discipline. "We need new methods of scholarship that respect the *synthetic* nature of problem solving," Carter writes (emphasis added). This recognition and contribution, he contends, should put mass communication education "at the very center of elementary and higher education -- especially of public education" (p. 10).

Because journalism studies have failed to achieve this academic centrality, neither the green eyeshades nor the chi-squares have managed to convince the public of journalism's importance to democracy. It seems, therefore, that resolving the confusion about educational mission must be a matter of great democratic importance.

In order to reinvigorate the relationship between journalism and democracy, it is

necessary to look at a few ways in which the relationship began.

American Democracy and Journalism: Early Views

Thomas Jefferson was engaging in hyperbole when he told his friend Edward Carrington in a letter that he "should not hesitate a moment" to prefer a nation without a government to one without newspapers (quoted in Malone, 1951, p. 158). Jefferson knew well that the newspapers of his day would hardly stand tall as democracy's sole sentinels, since some peddled outrageous misrepresentations for partisan reasons (sometimes aimed at him) and others were incompetently written. That realization did not prevent Jefferson from using friendly ones to his own partisan advantage, or at least cheering silently when his allies did so on his behalf (Bowers, 1925). At its core, however, Jefferson's assertion represents what Malone (1951) calls "a fundamental tenet of his faith[: that] the mind of man must be left free, there must be entire liberty of discussion, and both the progress and security of society are contingent on the dissemination of knowledge" (p. 159). Jefferson supported the idea of a free press not because he trusted the wisdom of publishers, but because he trusted the "communitarian morality" of educated common people (Wills, 1978, p. 187). He saw a nexus between democracy, universal education, and a free press. He explained to Carrington: "But I should mean that every man should receive those papers *and be capable of reading them*" (emphasis added) (Malone, p. 158).

It is not clear from the text alone whether the First Amendment's original intent was primarily communitarian or utilitarian -- that is, whether it was meant to promote

the health of democratic institutions through the shared benefits of open public debate, or to protect each individual's right to publish free of government restriction, even if that journalism might be irresponsible or destructive of democracy. The Second Amendment's ill-defined shackle on the right to keep and bear arms ("a well-regulated militia...") would suggest that the absence of such a caveat in the First Amendment favors the utilitarian meaning. Given the fact that many of the framers had suffered at the hands of the partisan press, it might not have been surprising if they had conditioned press freedom upon press responsibility (a well-regulated and sober press being necessary to the welfare of a free State...), but they resisted. Press freedom, in this view, is a libertarian value, a Kantian imperative justified by its own free exercise, not one that is granted or earned as a reward for ethical practice, accuracy, balance, fairness, or support of the status quo (Merrill, 1990).

Society is still sorting out how the advent of desktop publishing and the Internet, which are rearranging existing models of the public-press relationship, will affect public thought on press freedom. Every technological advance, from newspapers to radio to television, has changed the nature of public debate by expanding the number of recipients for media messages; the Internet, however, dramatically expands the number of message senders. When everyone has the technology to be, in essence, a journalist, more members of the public might come to regard press freedom as their own right, and Merrill's individualistic and libertarian view of the First Amendment might win out (Huesca, 2000). For now, however, that does not seem to have occurred.

Fewer than one-third of Americans express strong confidence in newspapers (Project for Excellence in Journalism, 2006), and they tend to rank free speech (clearly an individual right) above free press (possibly perceived as a corporate right) in importance (Andsager, Wyatt, and Martin, 2004).

From Unity to Scrutiny

Despite the utilitarian legal history of the American press, its social and political history is largely communitarian. From the beginning, the attention has been on the press's role in society, not on its exercise of freedom. The press served early on as a source of information that helped to shape the new national identity. Newspaper accounts of national affairs accelerated the development of a sense of shared interest in the health and welfare of democratic institutions. Until the invention of the telegraph, newspapers were the public's only reliable means of learning the outcome of elections, congressional or legislative debates, or judicial decisions; even then, public communication was still subject to muddy roads, washed-out bridges, and bandits. The telegraph tolled "the death of distance" (Cairncross, 1997), turning Civil War battles into national events. The press, aided by technology, was beginning to knit disparate populations into a people with a common knowledge of and stake in the outcome of public issues.

At first, however, few voices were heard. Early press accounts of public affairs tended to be restricted to official information or the statements of rich and powerful opinion-makers. Voices from the peripheries of power, from sharecroppers to the new

throng of factory workers to the advocates of unconventional political opinions, were largely excluded from the mainstream commercial press, with the result that the press tended to support the status quo. The fact that newspaper owners were themselves members of the economic and political elite made it even more unlikely that the press would sanction an attack on the establishment, a reality that remains today (Downs, 2002; Parenti, 1995; Van Dijk, 1983).

During the latter decades of the nineteenth century, however, new economic pressures and opportunities began to change the press's relationship with power. Massive European immigration into American cities further accelerated the commodification of information that had begun with the Penny Press (Huesca, 2000). Sensing a market demand, newspapers began to move away from the detached and forced perspective by which official news of official actions had tried to promote a uniform national view. Instead, newspapers turned up their criticism of the performance of public institutions, with a strong emphasis on fact-based reporting about issues of urban social welfare. Press interest shifted from large, distant debates toward matters more immediate to readers' happiness and even their survival. For the first time, the press demanded not just access to official pronouncements, but to information that the government sought to repress, from conditions in public hospitals to corruption in City Hall. Joseph Pulitzer summarized the aggressive and overtly populist approach when he inaugurated the St. Louis *Post-Dispatch* in 1878. He vowed that the paper "will serve no party but the people ... will oppose all frauds and shams, whatever and wherever they

are; will advocate principles and ideas rather than prejudices and partisanship" (Trimble, 1992, p. 69). Not only had public service become a mission; it had become a business. Even more importantly, the definition of public service had changed, primarily because the definition of public had changed. The public of the newspaper debates of the 1780s and 1790s had consisted of members of the elite or their seconds hiding behind classical-sounding pseudonyms such as Publicus, Mutius and Cornucopia as they hurled thunderbolts at each other from mountaintops. A century later, the American newspaper's public consisted of blue-collar Eastern Europeans and outcasts of the British underclass.

Soon those new masses would read the exposés that represented the first stirrings of what would later become environmental journalism. Democracy, gauged by the public's ability to turn the information it learned from the papers into demands for reform, would be changed forever.

Roots of Environmental Journalism

America already had a rich tradition of nature writing and natural history, traceable through Thoreau, Burroughs, and Muir, when the Gilded Age press premiered (Kanze, 1996). In the latter 1800s, popular accounts, photographs and paintings of Yellowstone, seen in the urban East, helped stir the public to preserve that ecosystem (Hargrove, 1989; Shabecoff, 1993; Schullery, 1997). In the case of Yosemite, it was a report in *The Mariposa Gazette*, a local California newspaper, in 1855 that first disclosed the valley's wonders to the wider world. Newspapers and magazines in the Eastern

United States reprinted the report (Schaffer, 1992).

Little or none of this writing, however, would qualify as journalism in any modern sense. It was left to the big-city newspapers, chiefly in the East, to inject environmental or related issues into the muckraking trend.

The end of the 19th century and the start of the 20th was an era of Progressive reform in bulging American cities, especially Chicago, where Jane Addams held long conversations on religion, democracy, and social conditions at Hull House with her friend John Dewey. Some of the era's most famous journalism reflected the Progressives' rejection of social Darwinism and Gilded Age greed and their desire to lift the underclass (Addams, 1999; Knight, 2005). Health and environmental conditions were high on the list of concerns. Nellie Bly's undercover assignment in the New York City mental hospital for Pulitzer's *New York World* exposed human abuses and sorry health conditions, forging a link in the public mind between human rights and environmental conditions that remains strong today. Although the most famous exposé of the era, the classically Progressive socialist Upton Sinclair's *The Jungle*, is a fictionalized account of shocking conditions in Chicago's meat-packing plants, it grew from a reporting assignment from a socialist newspaper, and virtually all of its factual representations of life and death in the Stockyards, described in layer upon layer of journalistic detail, have withstood the test of time (Sinclair, 1981).

One piece of Gilded Age journalism from 1891 deserves special notice for having been the first truly environmental-investigative reporting and for having pioneered

reporting methods still in use today. Jacob Riis of *The New York Sun*, already known as a tireless crusader against slum living conditions, looked through a routine weekly water-quality report at the city's health department. When he read that the city's upstream watershed contained trace amounts of nitrate, he recognized the potential health threat of sewage contamination and cholera. The resulting story sounded the alarm, but Riis went further. He went upstate, spent a week following streams, and with words and his camera (Riis was a pioneering photojournalist as well) documented municipal garbage disposal in the watershed. He had found the source of the contamination. His second story resulted in a watershed-protection program that may have saved many lives (Ware, 1939). Riis set a journalistic standard when he took the initiative, saw the problem with his own eyes, and beat the officials to the discovery, assuming that they ever would have found the problem without his help. Many reporters have followed his example without knowing they were doing so.

Later works of environmental journalism can trace their subject matter and methodology to Riis and the later Muckrakers. In 1959, Howard Van Smith of *The Miami News* won a Pulitzer Prize for his stories on the horrific conditions facing South Florida's migrant farm workers, which included pesticide exposures (Pulitzer Prizes, 2007). The next year, CBS aired *Harvest of Shame*, producer David Lowe and correspondent Edward R. Murrow's documentary on the same topic. Chief among the heirs is Rachel Carson, whose *Silent Spring* (1994; original work published 1962) used a journalistic approach. Rather than conducting original scientific research and reporting her results

in a research journal or even a popular book, Carson assembled and analyzed scores of studies and reports done by others, augmented them with interviews, and synthesized the information into a coherent and compelling account aimed at lay readers. First serialized in *The Atlantic Monthly* and then published in book form, *Silent Spring* drew an immediate and dramatic response, triggering congressional hearings, meetings in the Kennedy White House, passionate denunciation by chemical industry lobbyists, and saturation coverage in newspapers and on television for weeks (Lear, 1997). The book had its intended short-term effect: The response was dramatic, from individual readers to the Kennedy White House. The public demanded action, and the government responded by banning DDT use within the United States a dozen years after *Silent Spring* appeared (Ponting, 1991; Shabecoff, 1993; Lear, 1997). Many scholars have linked public response to *Silent Spring* to the passage of laws on pesticides, endangered species, and clean air and water, and to the creation of the U.S. Environmental Protection Agency (Shabecoff, 1993; Lear, 1997). It seems likely that another reform with even broader implications for democratic processes also owes its existence, at least in part, to Carson: the Freedom of Information Act of 1967. Carson's demonstration of the benefits of public scrutiny still bears fruit today.

Silent Spring also set the stage for an increase in environmental coverage and eventually the establishment of at least part-time environmental specialty beats at *The New York Times* and other papers (Shabecoff, 1993; Lear, 1997). The years after its publication saw rapid advances in the sophistication of environmental coverage. In one

three-year period, three Pulitzer Prizes went to newspapers for environmental investigations: the 1967 Gold Medal for Public Service, jointly to *The Milwaukee Journal* for its exposé of Wisconsin's lax water-quality laws and *The Louisville Courier-Journal* for its probe of Kentucky strip mining; and the 1969 national reporting prize to Robert Cahn of *The Christian Science Monitor* for revealing the sorry state of the national parks (Pulitzers, 2007).

The democratic importance of the Gilded Age investigators and Carson and her contemporaries extends far beyond the particular cases they covered. First, they established in the public mind the idea that environmental conditions created by the quest for profits might literally mean life or death for the reader; children, workers, or the elderly might die without vigorous and competent regulation. At the heart of the matter, the reporters found, was greed; the supposedly free market turned out to be fixed. The rising tide could not lift all boats because all but the yachts were leaking due to shoddy workmanship and substandard materials; perhaps someone had even punched holes in the bottoms. The investigators dragged the corporation into the sunlight and showed it to be an actor in the reader's human suffering.

Second, they revealed that government, rather than watching out for the public welfare, might be a partner in those harmful corporate actions. In the case of DDT, government scientists, hoping the new miracle chemical would protect crops and people from pests, were deeply involved in its development. Even when faced with early signs of its environmental risk, however, federal and state agencies still worked closely with

chemical companies to make sure the new insecticide would be widely used (Carson, 1994).

Third, the investigators proved that the exposure of suppressed facts could lead to reform. The early American press dealt with public issues by debating ideas rather than by reporting on governmental actions; a century later, the focus had shifted to revealing the failings of institutions and policies, from New York's mental hospitals to the federal government's pro-pesticide bureaucracy.

Fourth, the investigations destroyed the old idea that journalism would gradually improve the nation by educating the public, which in turn would elect leaders every few years who would then responsibly represent the public interest. Instead, the investigations brought immediate public demands for swift reform. Government accountability would now be expected long before Election Day.

Fifth, the investigations attacked blind faith in technology and in powerful institutions. They revealed the need for transparency, inquiry, and debate in national decisions, rather than trusting that government or corporations, acting alone, would protect the public interest (Lear, 1997).

Finally, they demonstrated the power of an appeal that is at once both factual and moral. They frequently championed the ascent of the social underclass to a new status in American life. Riis, for example, was well known as a crusader against New York slum conditions; he supplemented his reporting with photojournalism that documented the human misery he found in the tenements. Similarly, Carson was

careful with her facts, but at heart *Silent Spring* is a moral book; it states plainly that poisoning nature for human convenience is not only ecologically harmful, but also ethically wrong. The investigations' moral appeals, whether implied or explicit, elevated their visibility and increased their impact.

All of these changes had a direct bearing on the development of environmental journalism as it stands today. Close examination of official and corporate actions and their effects on the public, and demands for reform, are mainstays of environmental coverage. As with Riis, contemporary environmental journalism counts social justice among its hallmarks, since there is ample evidence that poverty, class, and environmental risk are intertwined (Bullard, 1996, 2000; Flournoy, Loftis, and Timms, 2000). Rubin (1977) argues for a clear recognition of journalism's duty to cover topics such as social justice and the environment that might seem out of the political mainstream. "It profits society little if more goods are sold every year, while an increasing number of black people lose faith in democracy," he writes. "The media should be judged on how well they systematically attempt to cover essential stories, that is, on how adequately subjects connected to poverty, children, health, education, religion, the environment, research, and so forth, are covered on a continuing basis in some systematic fashion" (pp. 25-26). The notion that environmental quality actually is a mainstream, bread-and-butter public issue, not just the province of scientists and engineers or activists, is (or ought to be) a core value of journalism.

Losing the Mission

Despite its incandescent beginning, the age of the newspaper as an enthusiastic crusader for reform passed quickly. Nothing illustrates the abandonment of the mission more starkly than the circumstances surrounding the creation of iconic images of the 1930s: the Dust Bowl photographs.

The artists who created the pictures were photojournalists, but the Depression had turned them, by necessity, into government employees, working for the new Farm Security Administration. Their assignment was to document the implementation of federal farm policies, but the jarring black-and-whites are paradigmatic of environmental and social-justice journalism. They value the experiences of the common person, seeking to document the relationship between land degradation and the suffering of rural poor people -- not the generalized, statistical rural poor, but actual people, their individual lives significant both because they were symbols of a great struggle, but also because they were humans of singular worth. Thus, the photographs linked environmental conditions and social collapse, at the same time demonstrating journalism's power to connect people and to force reform. Those pictures that showed individuals struggling to maintain their dignity as their livelihoods literally blew away, such as Dorothea Lange's famous 1936 photograph of a migrant woman and her three children, added cultural, emotional, and moral elements to what otherwise might have been simply a technical problem of agricultural management and economics. The photographers who brought the public these images strongly influenced the social

safety net of the New Deal. The documentation of social conditions recalled Hull House and the Chicago School; in fact, Ansel Adams called the Farm Security Administration photographers "sociologists with cameras" (Stryker & Wood, 1973, p. 7).

They also helped to pave the way for a further redefinition of journalism's public that now included the poorest of the poor. Project director Roy Emerson Stryker notes proudly that the project's 270,000 exposures included "no record of big people and big events. ... We introduced Americans to America" (p. 8).

Why did a government agency rather than newspapers produce the legendary images? One possible answer lies in the passing of those legendary Gilded Age publishers who had combined sharp business strategies with a deep sense of social responsibility and an affinity for the underclass that bought their papers. Joseph Pulitzer, who despite his fabulous wealth never forgot his days as an impoverished immigrant on the streets of New York, died in 1911; in his will, he imposed upon his heirs "the duty of preserving, perfecting, and perpetuating the [*New York*] *World* newspaper, in the same spirit I which I have striven to create and conduct it, *as a public institution, from motives higher than mere gain*" (quoted in Mott, 1950, p. 642; emphasis added). However, *The World* survived just twenty years after Pulitzer's death before its 1931 merger with Scripps-Howard signaled "the passing of a champion of liberal causes" (p. 644). In 1926 the death of E.W. Scripps, who had earned a reputation as a defender of the dispossessed, initiated what some critics called Scripps-Howard's slide into complacency on social causes (p. 642). A different model of the

modern newspaper had emerged in 1915, one stripped of any sense of social duty. Frank A. Munsey, the Grand High Executioner of newspapers, declared that the social mission of a newspaper was no different from that of a slaughterhouse or a saloon: to make money. "The same law of economics," Munsey wrote, "applies in the newspaper business that operates in all important businesses today" (Mott, p. 637). To Munsey and his philosophical heirs over the next decades, the passion of the crusading publisher must have seemed quaint and, even worse, inefficient. Editorial pages that had railed against tainted food and water, dangerous working conditions, and City Hall corruption increasingly spent their energies opposing the New Deal's socialism (read: taxes on corporations and the wealthy) and its changes in social and economic structures. Reform had turned into reaction.

A subtle shift in language after World War I shows how quickly the press changed from defender of the poor to defender of the rich. In the Progressive Era of the early 1900s and through World War I, according to Stoker and Rawlins (2005), *publicity* meant the use of the newspapers to rally support for *public* concerns such as education, good government, or social reform. A few years after the war, however, *publicity* had taken on a very different definition. It had come to mean using the newspapers to sway popular opinion in favor of corporations -- *private* concerns -- or government policies, usually dedicated to maintaining the political and economic status quo, and often for the benefit of those same corporations. Stuart Ewan (1996) calls this development "the routinization of propaganda" (p. 176), and notes that Dewey

perceived it, too, and worried about what it meant for democracy or even for independent thought. "The need for united action, and the supposed need for integrated opinion, are met by organized propaganda and advertising," Dewey wrote. "The publicity agent is perhaps the most significant symbol of our present social life" (quoted in Ewen, p. 175).

Journalism and Faith in Fact

Clearly, then, journalism's crusading spirit can fall victim to economic or political pressure. Even during times of retrenchment, however, the fundamental transaction of journalism – the exchange of the audience's time or money for a fresh supply of facts – has remained valid. By 1920, journalism's particular brand of positivism or faith in fact had become so entrenched that Lippmann could compare the reporter gathering and presenting the news to a monk searching through the junk of a cluttered cellar for lost scraps of holy writ. "The news of the day as it reaches the newspaper office," Lippmann writes, "is an incredible medley of fact, propaganda, rumor, suspicion, clues, hopes, and fears, and the task of selecting and ordering that news is one of the truly sacred and priestly offices in a democracy" (1995; original work published 1920).

Deeply encoded within Lippmann's view is the idea that the journalist is not only the communicator of fact, but also the chief guardian of freedom, without whom the citizen would be ignorant and helpless against the enemies of democracy. It remains a powerful belief. Journalists have been slow to accept the possibility that other avenues of communication -- family, church, grocery store -- might be more important than

journalism in people's lives. Thus Rivers (1964) reveals the dominant professional view of his day regarding the importance of the mass media in the lives of individual citizens:

In the rush of modern life, we get only occasional glimpses of the world we live in, and only an infinitesimal part of it; to these we add second-hand reports from friends and acquaintances who are similarly limited.

The greater part of our knowledge of contemporary affairs must come from the mass media. There are simply no practical alternatives (p. 10).

According to this view, the mass media provide something elemental to human welfare. Without them, the individual is incomplete. Furthermore, information obtained through other means is puny, insignificant, and probably wrong. There are also echoes here of the magic bullet.

This notion of the journalist as the diviner of necessary truth from aggregated and reassembled fact is both a reflection of and a reaction to the intellectual revolution that began in the 19th century. In that era, the rise of the telegraph and photography in the mass media began to disconnect fact from context (Postman, 1993, 2000).

Simultaneously, much that had been culturally familiar and unquestioningly accepted was falling away under new, disquieting influences. Faith-based verities seemed to fail. Darwinism seemed to leave man alone in a world that both contained predators and was itself a predator, with earthquakes, landslides, and lightning conspiring toward human extinction; it was John Stuart Mill's view of hostile nature (Ponting, 1991), but stripped now of even the cold comfort of a detached and distant God. Postman (1993)

traces the collapse of divine protection to the natural science of Galileo, Newton, and Bacon, which he says "discredited the authority of earlier accounts of the physical world," such as Genesis. "By calling into question the truth of such accounts in one realm, science undermined the whole edifice of belief in sacred stories and ultimately swept away with the source to which most humans had looked for *moral* authority" (p. 160; emphasis in original). Even the arts came to manifest disunion, perhaps even chaos. Concert music threw off the warmth of Romanticism and took on an increasingly dissonant edge, its jarring sounds hinting at previously unsuspected dangers for what remained, after Darwin, of the human soul. Landscape painting that depicted scenes considered ugly by the prevailing aesthetic standards, done in an effort to capture the essence of the American West, began to replace naïve topographic depictions and stylized, studio-painted outdoor scenes fabricated from classical archetypes. Much of the new style of landscape art of the 19th century was scientifically based, executed in close communication with new discoveries in geography and natural history (Hargrove, 1989; Huth, 1990). Even in art, then, fact (as science) replaced belief (as myth). Meanwhile, naturalism in fiction was shoving romanticism, which was already wheezing, out the door.

Even the relationship of Americans with their own land, once an iconic force in the national identity, was changing. The mission of continental expansion, underlain spiritually by Turner's belief (1965) that the conquest of the frontier defined the American psyche, was over, and with it, the frequent attempts in art and literature to

justify the elimination of the wilderness and its native people on moral grounds (Sagoff, 1996). Instead, Americans faced Aldo Leopold's prospect of a world subtly but profoundly impoverished by the completion of conquest. "I am glad I shall never be young without wild country to be young in," Leopold writes. "Of what avail are forty freedoms without a blank spot on the map?" (1966, p. 158). A million facts had filled up all the deep places in the human mind where wonder and mystery once hid. Leopold worried that complacency and sloth would follow.

All these factors contributed to a sense of uncertainty that broad American confidence could only partially mask. Facts might prove an adequate substitute for religious assurance, harmony, romance, and wilderness; or they might leave the world irremediably poorer. In an age of such rapid and seemingly chaotic change, society began to feel a need for a constantly growing and accelerating supply of new facts to hold off the latter possibility. The new scientific method had reversed the old moral process, steadily undermined since the Enlightenment, that took divine rule of the universe as its starting point and then sought the proofs of it in the material world. God organized the universe, so the moral process held; people might find the plan by reading the inspired Scripture or, later, by using their God-given powers of enlightened reasoning. Facts were supernumeraries, just supporting players to the divine drama; they were not things in themselves, but rather, the fingerprints of ideas -- of God.

The new model turned things around. Facts came first; then ideas developed as a result of observing them. The organizing principles did not exist *a priori*, so they could

not define the facts; rather, the totality of fact would define the new organizing principles. The world, it now seemed, was simply an aggregation of little things. In biology, the beaks of Darwin's finches showed how small facts could be the authors of large truth. In painting, the analogous technique is pointillism (ca. 1885), in which the picture emerges from the totality of discrete, individually insignificant dabs and smears of paint. In journalism, it is the reporting of facts -- names, quotations, numbers, and so on -- with or without context. At the core, the observed manifestations of a species' physiological adaptations, the painter's tiny touches of his brush, and the reporter's facts are all the same: They are all real, empirically verifiable, and work in concert with other bits of information to reveal, in theory, great truths. This was the essential revolution of the modern mind.

In science and journalism, an underlying principle of this supremely empiricist worldview is that facts are not shaped by their ideological, intellectual, or cultural context; they exist in an actual sense and on their own terms. Every person, whether Christian or Confucian, could observe them, record the same observations, and reach the same conclusion. In science, the principle is called reproducibility; in journalism, it is called fairness. Real life might teach that true objectivity is unattained and unattainable, but it remains the goal. Subjectivity, in this view, is a human (and journalistic) failing, not a fundamental, even necessary element of human nature. By chronicling all the seemingly discrete and disjointed events occurring in a society in flux, the journalist would create a comprehensive record of facts. Viewed from an appropriate distance,

the record would reveal the pattern, thus creating the new idea. It was the dawn of scientific positivism as a journalist tenet.

There is, however, an asterisk to this perfect world of perfect fact. As it turns out, the example of pointillism only appears to support the modern empirical paradigm. In reality, it turns it on its head.

The archetypal pointillist painting, Georges Seurat's *Un Dimanche à la Grande Jatte* (1884-1886), depicts an outdoor scene with the brilliant greens of nature. However, Seurat's greens are not what they seem. At many points on the canvas, Seurat has placed dabs of blues, yellows, and other colors close to each other so that the viewer's mind will perceive them as the greens that the artist desired (Herbert, 1991). Not only is beauty in the eye of the beholder; so is the picture itself. The green dots that the viewer perceives do not exist until the moment of perception. Let the viewer's eyes turn away, and they cease to exist. If the green dots do not exist, then the pattern they help to form cannot exist. It, too, is created out of the viewer's expectations: The painter has painted nature without its green, but the viewer expects to see green, so green appears. The viewer's perception creates the reality.

If the world that the viewer sees on a pointillist canvas is only an illusion, a construct created from expectations instead of from facts, what other supposedly fact-based worlds are suspect? Are the facts flowing from the journalist's fingers those he learned, or merely those he expected to learn? Does the reader, viewer, or listener receive the news, or create it? The implications of these questions for democracy, the

environment, journalism, and journalism education are only now being understood.

A Fight Over Journalism's Proper Therapy

Just as positivism's substitution of discrete, context-free facts for unifying cultural norms undermined the dominant beliefs of one age, the subsequent demise of facts at the hands of postmodernism clearly spells more trouble, both for society and for the news industry, which after all purports to be in the facts business. If there are no facts, what does the newspaper put in its stories?

In Dewey's view, the chief commodity of journalism is social reunification and cultural restoration. Dewey and the Chicago School scholars who followed him recognized the potential dangers in the loss of cultural identity (Whitby & Whitby, 1990). As cities swelled with people who had cut ties with their farms or their native countries, it was easy for the individual to drift and eventually crash. The sociology of the Chicago School therefore had a strong orientation toward social work, that is, toward finding ways to rescue and heal those who had lost their social moorings (Feffer, 1993; Bulmer, 1998).

Dewey was optimistic that a way could be found to restore a common cultural narrative. One seat of his faith was the newspaper. He and his intellectual successors believed the American newspaper had the potential to serve as "a reunifying communicative force in a society whose sensibilities had been fragmented by industrialization and urbanism" (Whitby & Whitby, 1990, pp. 120-121). The result, Dewey hoped, would be a public motivated to take an active role in democracy, with

individuals motivated by the press but making their own decisions on how to participate (Feffer, 1993). It was not a new idea. Hallin (1985) traces optimism about the press's value as political motivator to such diverse sources as de Tocqueville and Marx.

Dewey's hopefulness was not based on a belief that newspapers possessed any special knowledge. Rather, he believed that they might substitute for the city square or the town meeting, an idea that echoes Jefferson. He saw the "journalist as social narrator/moderator, organizing a wider range of views than the community itself produces and a forum for their further discourse that actively includes the community" (Parisi, 1997, p. 681). Dewey recognized as well that the newspaper itself might be the catalyst for communication, but also that it did not constitute communication by itself. The newspaper might not even be the most important means of connecting people. As Thomas Bender put it, Dewey "imagined public dialogue negotiated through 'the voice, more than print, and the conversation, more than the media message'" (quoted in Parisi, 1997, p. 680).

Dewey's belief that the newspaper might aid in restoring cultural cohesiveness never received much empirical proof, perhaps in part because the newspapers themselves were more interested in selling copies than in facilitating dialogue. Some critics also detected in his philosophy a reluctance to challenge existing structures of society and thought. Randolph Bourne, a onetime devotee of Dewey's, issued a blistering critique of his former mentor's complacency:

The defect of any philosophy of "adaptation" or "adjustment," even when

it means adjustment to changing, living experience, is that there is no provision for thought or experience getting beyond itself. ... You never transcend anything. You grow, but your spirit never jumps out of your skin to go on wild adventures ... Instead, you will only pile up behind you deficits and arrears that will someday bankrupt you (Bourne, 1977, p 344).

The critique grows out of Dewey's supposed societal complacency and his positivism, which can lead to a quantification (that is, reduction) of human experience. For Dewey's critics, since data can only reflect the status quo, positivism must ignore context and inevitably reflects existing hegemony; thus, Dewey emerges as a defender of the current power structure and, in the extreme view, a tool of capital. The critics found no easier target for their arrows than Dewey's faith in the democratic power of journalism.

Critical theorists faulted the optimists in general, and Dewey and the Chicago School in particular, for failing to see the press in economic terms, specifically for not recognizing it as a supporter and member of society's dominant power structures (Whitby and Whitby, 1990; Cassidy, 1992; Johnston, 2006). Many have observed that media owners, as members of a narrow and privileged class, tend to downplay coverage of the underclasses (Van Dijk, 1983; Parenti, 1995; Downs, 2002). This tendency acts to displace discourse among members of the public with discourse among experts and elites. "When this happens, the media tend to allow monopolistic or oligarchical control over the public agenda as well as mass persuasion and

manipulation" (Manca, 1989, p. 172). Bruck (1989) summarizes critical theory's view of the media with four points:

- (1) Media are commercial servants of capitalistic agendas;
- (2) News is produced by industrially organized media, an "interlinked chain of people and machines;"
- (3) News is a bureaucratic product in which a bureaucracy decides "what is made to be known and how it is to be known;"
- (4) The news industry is tied "intimately and bureaucratically to the existing power structure of the state and the economy, an integral part of today's social administration of domination" (pp. 111-112).

The latter point is an overstatement; the larger point, however, is that journalism cannot duplicate a world that exists *a priori* and awaits the reporter's discovery because, even if the source-world actually exists, the best the journalist can do is to reconstitute it through a highly personal set of perceptions -- and always, critical theory holds, within the discursive limits established by the ruling class. "Critical studies," Parisi (1992) notes, "examines journalistic writing as a specific rhetorical form, not a transparent stenography of the real" (p. 4).

Identifying journalism as rhetoric instead of reality, with a suggestion of imbedded agendas and deliberate framing, is in line with Marx's desire for critical theory to achieve "the self-clarification of the struggles and wishes of the age" and with Brulle's contention that critical theory "aims at facilitating the creation of a social order

founded upon the reasoned acceptance of social organization freely arrived at in public dialogue" (Brulle, 2000, p. 9.). Clearly, there can be no truly free public dialogue if the forum of communication is under the control of the capitalist owners of the newspapers; that is, if the ruling class dictates the acceptable choices. Certain topics and views will be off-limits because the system cannot allow them to take root. Therefore, the outcome of any mass-media-facilitated dialogue will always be the reinforcement of the existing dominant structure. If Dewey expects the newspapers to save true democracy, critical theory says, he is delusional.

Bruck (1989) finds this assessment too pat; he sees plenty of places along the assembly line of industrial news where it is possible to insert alternate viewpoints. Critical theory also stumbles when it assumes that a monolithic power structure is pulling every string in every newsroom and boardroom. Still, he notes three important points that sprang from critical theory's critique and have strengthened thought about journalism. He calls them realizations:

(1) News people go beyond selecting content, "but also construct stories, generate meaning, and produce 'the world'" in their accounts;

(2) Creating meaning in news is far more complex than quantitative measurement can account for (a swipe at content analysis for its reductionism, lack of context, and failure to consider power relationships);

(3) Readers "actively read texts and continuously negotiate their meanings" (p. 117).

Similarly, Van Dijk (1983) identifies four elements of discourse analysis, as applied to media messages, that draw from critical theory without adhering to its more problematic dogma:

(1) It examines a media message "as discourse in its own right ... as a form of 'social practice';"

(2) It seeks qualitative instead of quantitative data;

(3) It examines not only the message's surface elements, but the underlying messages, conscious or not, and its structures and comprehension;

(4) It is interpreted as part of a larger "social theory" (pp. 26-27).

Van Dijk would not call journalism's constructed world an especially bad kind of artifice, for it may have as much claim to reality or morality as any other cultural assemblage, such as religion, law, science, or art. Still, the cultural context of news seems inescapable; simply watching one report on an event from an American network and another from the BBC amply demonstrates that reality. The interplay of mass media and culture is so complex that some criticism of the media -- for promoting materialism, indecency, bad music, or obnoxious viewpoints on some issue -- is actually social criticism (Rivers, Peterson, & Jensen, 1971).

In summary, any audience can only understand news according to its own pre-existing orientation, its definition of common sense; and even then both the journalist and the viewer constantly select some elements of the story and reject others. It does so in ways it might not even realize, but in keeping with the boundaries of its culture

(Lee, 2001; Downs, 2002).

Public Journalism as Medicine: Good, Bad, or Just Weak?

The clash between the hopeful Dewey and the cynical critical theorists is not an artifact of history. The experience of public or civic journalism within the past decade shows how the ideological struggle over the media's role in social and cultural healing remains alive today.

Public journalism, sometimes called civic journalism in a slightly different context, appeared in 1993 as an attempt to address the worsening alienation between the media and the public. Its proponents held that what the news media saw as the positive values of disinterest and objectivity, the public saw as arrogance and aloofness. In one large urban area of the Southwest, for example, people told surveyors they would rather have the news media listen to them, represent their views, and be a "good neighbor" than expose local hazards and wrongdoing (Heider, McCombs, & Poindexter, 2005). In other words, the media produced dry, formulaic stories about official actions; the public wanted a voice.

In response, newspapers and broadcasters invited the public inside, reached out to civic, religious, and business leaders, and even formed focus groups to help plan news coverage. They sought to facilitate conversations between disparate groups in search of common ground and positive solutions to stubborn problems. They began to put into practice, probably without knowing it, Dewey's unrealized vision of the newspaper as a public forum (Ettema & Peer, 1996; Rosen, 1999; Eksterowicz &

Roberts, 2000).

Actual results were mixed, but critical theory's review was devastating. Hardt (1998), tracing public journalism's genealogy straight back to Dewey, faults it for its lack of a theoretical basis or historical understanding of the social and economic shifts that led to media changes. Public journalism avoids any critique of society or the media's economic structure, Hardt maintains, and turns out to be little more than a poll- and focus group-driven child of marketing that does not open up the forum of ideas as much as it reshapes the media to match the tastes of the middle class.

Parisi (1997) echoes that view, saying that public journalism promises to provide "the 'master narrative' of a community's struggle with its problems," but delivers only public opinion and bland boosterism (p. 676). Maintaining that a journalist-moderated conversation never can accommodate all of a community's voices and viewpoints, Parisi finds the greatest fault in public journalism's seeming obsession with finding common ground and reaching compromise. In reality, that impulse to steer the safe middle way has always run through smaller media, the ones that tended to embrace public journalism. In a smaller, more homogeneous community, often dependent upon a single industry, local news media are almost always "legitimizers of projects, builders of consensus, and instruments for tension management," and therefore are not likely to investigate the dominant industry or power structure (Griffin and Dunwoody, 1995, p. 273). In Parisi's view, "common ground" means that the dominant structures continue to dominate. Public journalism, he contends, ends up as "an extended exercise in

normalization" (p. 680).

Supporters of public journalism maintain that the critics are too quick to read evil intent into a simple desire to bring people together to talk. They contend that journalists alienate the public and thus endanger democracy when they cover public issues as if they were prizefights. Conventional news media, public journalism advocates say, try to mislead people into seeing the complex problems of their society as simple yes/no, winner/loser contests between special-interest groups, with the public merely a spectator. The journalists are spectators, too, under the traditional paradigm; they cover the fire, but refuse on principle to grab a bucket. Later they congratulate themselves for having maintained their professional neutrality on the question of whether the school should burn down (Manca, 1989; Rosen, 1999).

Jay Rosen, public journalism's best-known advocate, says these traditional approaches have had disastrous results: dropping newspaper circulation and market penetration, declining network-news ratings and, more to his point, a cynical media and a seemingly uninvolved, uninterested public. The critics of public journalism, Rosen says, never manage to offer a better solution than sticking to the old ways, clearly the path to oblivion. He asks: "Hadn't these failed to prevent journalism from losing its audience, losing public trust, losing effectiveness, in general, losing its way? ... The dangers of doing nothing were rarely weighed against the risks of exploring public journalism" (Rosen, 1999, p. 183).

Public journalism's defenders, however, are less able to answer the charges

leveled by many journalists that the process seems artificial and top-down, more like an order from the boss *for* the benefit of the people than a reassertion of rightful power *by* them. One imagines a management memo: *Starting Tuesday, all newsroom personnel shall commence listening to the common citizen.* In that sense, public journalism might change the tone and composition of the media message, but it does not disturb the structure that produces and distributes it; that structure remains deeply imbedded in the dominant economic and political order. In fact, protecting the structure might be the whole point. Public journalism might be a reform when what is needed is a revolution.

Public journalism makes one fact plain, however: The intellectual tension between Dewey and critical theory, far from being a topic for obscure papers on the history of communication studies, is still a force in determining -- one way or the other, or via a third way -- the future of journalism.

Restoring Journalistic Optimism through Theories of Ritual and Storytelling

Few journalists, asked to name the creative piece of work that carries the news, would call it an article or report or use any other bloodless label. The thing is a *story* -- a term not just from the vernacular, but one freighted with cultural power.

These, however, are strange days for the concept of story in journalism and in culture. Earlier, I explored the damage that the 19th century empirical paradigm did to Genesis, the religious and the picturesque in art, the mythology of the American frontier, and the human sense of mystery and wonder. Their replacement was a faith in

facts. Data supplanted belief; from data would spring the new idea -- the new story.

Data, however, quickly proved to be poor cultural cement. In just barely longer than God's six days of Creation, it began to appear that facts might not even exist. They might be no more than cultural clutter, the manipulations of the ruling class, or individuals' quirky physiological responses to stimuli, just as Scrooge thought an undigested bit of beef had conjured up Marley's ghost in his sitting room. With six billion people on Earth, there could be six billion iterations of any fact, the upshot being, of course, that there are no facts, and therefore no new story to bind people to each other. Instead of listening to the sermon, all the people in church could stand and simultaneously shout their own versions of it. It was as if everyone in the ballpark were now an official scorer, free to mark the previous play as a grand slam or a strikeout based on cultural steering, individualized perception, or personal whim.

With society now lacking faith in either story or fact, technology deepened the crisis instead of solving it. Huesca (2000) says technology is destroying journalism's "canon of unity," which he defines as "a singular author exerting an authoritative voice and crafting a report with a fixed reading order and a developed story line." Instead, hypertext creates a fluid, disjointed, constantly shifting grab-bag of voices, some cogent, others crazy, with no immediate way to tell them apart. The result, Huesca says, is the undermining of the small narrative as well as the grand. He calls on journalism to "develop practices that are congruent with the imputed properties of cyberspace," while remaining grounded in traditional journalistic values (p. 4).

The danger here goes beyond journalism, however. The broader concern is that social breakdown and random left-click leapfrogging are encouraging people to become technologically handy but culturally incoherent -- populating a world that adds up to much less than the sum of its newly atomized parts, and causing real harm in the process. It is also true, of course, that hypertext also mimics the process of the mind in jumping from thought to incomplete thought; perhaps there is something satisfyingly human about the endless branches of links that, like random flashes of mind, may never complete the circle back to the point of origin. Postman, however, warns of the human costs of this "a peek-a-boo world," in which images, events, and people appear and disappear, seemingly at random. He worries that modern technological culture is awash in context-free and purposeless information that "has become a form of garbage, not only incapable of answering the most fundamental human questions, but barely useful in providing coherent direction to the solution of even mundane problems" (1993, pp. 69-70).

The challenge for journalism, then, seems stark, especially since so many media companies have staked their futures on selling dynamic anti-narratives to attention-deficit victims. If mass-media *content* (a blank, value-free word) is divorced from context, and if content only functions to attract skimmers and clickers instead of readers, journalism will have to try something different if it is to fill any part of its traditional democratic role. Not knowing what else to do, many media owners have fallen back on tired standbys such as focus groups and market research and embraced

new content delivery technologies without understanding how people might use them. Clearly, the times demand something bolder, a new idea that seems more likely than still another round of newsroom budget cuts and hollow, reflexive reader surveys to yield something of lasting value. I suggest that Carey's idea of ritual and Postman's notion of story are good starting points for the creation of a new journalism of deep human connections.

Carey acknowledges the role of perception and culture in the construction of reality, including in journalism, without going to the nihilist extreme of concluding that all facts are lies. Carey finds the death of narrative to be harmful to human welfare and argues for the necessity of ritual (alternately called story, myth, narrative, or even magic) in a healthy society (Carey, 1989; Whitby & Whitby, 1990).

Following Dewey, Carey identifies two communication models, transmission and ritual. The transmission model, in which information flows from a distinct sender to a distinct receiver, traces its origins to the use of *communication* as a synonym for *transportation*. With the advent of the telegraph, the commodity being transmitted shifted from material goods to information. The transmission model always reflects a power relationship between sender and recipient, since "the center of this idea of communication is the transmission of signals or messages over distance for the purpose of control" (p. 15). The control could be political, economic, cultural, or, as Carey emphasizes, religious. Carey notes that the telegraph, feeding ideas to the religious press, dramatically accelerated the adoption of a strikingly uniform Protestant theology

during the 19th century -- coincidentally, the same period when Darwinism was starting to undermine dominant religious beliefs.

The transmission model regards the newspaper as a means of getting a large amount of news and other information to a great many people over distance. Although Carey does not specifically address it, according to this model the newspaper-to-reader relationship is as power-to-subject, with the journalist or publisher selecting and framing the information and the reader able to take or leave it, select some messages and reject others, but not to alter the messages themselves. The control in this case is economic; by regulating which information reaches the reader, the newspaper can tailor itself to the market. The issues that Carey says the transmission model raises regarding newspapers are chiefly effects questions. In reality, many different kinds of questions arise regarding the choice and presentation of news, the aims of ownership, and the relationship of the media to political power -- inquiries informed by critical theory.

The ritual model is of a different sort. There is no distinct, one-way flow of information and no clear division between sender and recipient. Everyone who touches the information, from writer to reader, shares in the creation of a cultural event, a ritual. Here the meaning of *communication* goes to its etymological kinship with *communion*, *community*, and *common*. Communication becomes a term of sharing, not of delivery.

Using Emile Durkheim's description of the world that people perceive as "a projection of the ideals created by the community," Carey explains how communication

forms a ritual that is itself reality instead of merely depicting reality:

This projection of community ideals and their embodiment in material form -- dance, plays, architecture, news stories, strings of speech -- creates an artificial though nonetheless real symbolic order that operates to provide not information but confirmation, not to alter attitudes or change minds but to represent an underlying order of things, not to perform functions but to manifest an ongoing and fragile social process.

(p. 19)

The world that each person creates out of communication, then, affirms and perpetuates the individual's continuing yet dynamic position in the communion of society.

Reading a newspaper, therefore, is a radically different act under the ritual model, more like attending a mass than retrieving data. The stories, headlines, pictures, and advertisements are not "pure information[,]" but a portrayal of the contending forces of the world," through which the reader engages in and steps away from the events reported while moving from story to story (p. 20). Carey says that effects questions do not apply in the regular sense, but arise instead to address "the role of presentation and involvement in the structuring of the reader's life and time" (p. 21). Carey casts the newspaper not as entertainment, but as the dramatic play of life itself:

Newspapers do not operate as a source of effects or functions but as dramatically satisfying, which is not to say pleasing, presentations of what

the world at root is. And it is in this role -- that of a text -- that a newspaper is seen; like a Balinese cockfight, a Dickens novel, an Elizabethan drama, a student rally, it is a presentation of reality that gives life an overall form, order, and tone. ... Under a ritual view, then, news is not information but drama" (p. 21).

This does not mean that actual information is not transmitted, Carey says. And he does not suggest that the events depicted in the news did not happen, or that the things in the pictures are not real. He intends "not to make any large metaphysical claims," but only to state that "reality is brought into existence, is produced, by communication -- by, in short, the construction, apprehension, and utilization of symbolic forms" (p. 25).

This leaves journalism with a considerable challenge: Does it report, with the term's suggestion of a now discredited positivism, or tell stories, a much different task, at the cost of its objective values? (Moore, 1999). Carey teaches that the newspaper tells stories whether it means to or not, but the evidence suggests that the results of inadvertent narrative do not satisfy. Is it possible that the growing rift between journalists and their audiences is due in part to the journalists' failure to recognize their important role in staging the dramatic play of life -- that they rely too much on stock characters, cheap sound effects, and shallow dialogue? This is not a problem of presentation, to be fixed with shorter stories, snappier headlines, digital video, or more hyperlinks, nor with any rearrangement of news beats within the exhausted but still dominant paradigm of media management. Stronger medicine seems to be required: a

recasting of the idea of news to emphasize the great dramas of the world, *world* being defined both broadly for the whole society, and narrowly for the individual. Instead, we have a contemporary journalism that frequently seems pale, timid, and craftily trivial. "The 'public sphere'," says Hallin (1985), using Habermas's term, "has given way to the 'consciousness industry,' the press as a potential medium of public dialogue to the 'mass media,' deeply imbedded in a structure of domination" (p. 122).

Carey agrees in part. He objects, however, to the continued reference to power as the chief element of modern communication because it consigns ritual to the counting house. "Social life is more than power and trade," he writes. "It also includes the sharing of aesthetic experience, religious ideas, personal values and sentiments, and intellectual notions -- a ritual order" (p. 34).

Carey's ritual model seems on its face to be descriptive, telling what is instead of what ought to be, although he calls all communications models "templates that guide" rather than reflect (Carey, 1989, p. 32). Postman, in his critiques of technology, *Technopoly* (1993) and *Building a Bridge to the 18th Century* (2000), takes it further. Like Leopold and Einstein, he maintains that ritual (or in his terms, narrative or story) not only is or should be a part of life and culture; it must be (Leopold, 1966; Holton, 1996). Postman writes: "What is important about narratives is that human beings cannot live without them. We are burdened with a kind of consciousness that insists on our having a purpose" (2000, p. 101).

Postman finds the demise of story to be the chief affliction of the age. Both

science and religion should embrace their higher calling to serve as story -- "limited human renderings of the truth." When they falsely claim to be fact, he says, in reality they are tragically ill served by it. Seen as truth instead of tales, "all their hope and promise turn to dust ... and people flee it in despair. In either case, certainly abolishes hope, and robs us of renewal" (2000, p. 114).

The newspaper, on the other hand, operating in the positivist tradition, tries to answer questions, remove doubt, and deny uncertainty. In the conventional view, *We don't know* makes a poor headline. Postman says this philosophy, rooted in ideas of control, has robbed the newspaper of the idea of story or, his term, wisdom, and the paper suffers mightily for it. Information (the expression of facts) is no longer what the newspaper can sell; television and the Internet do that much faster. Even knowledge (organized information) won't do. Postman says newspapers must sell wisdom "the capacity to know what body of knowledge is relevant to the solution of significant problems" (p. 95) -- that is, knowledge enriched with *So what?* and *Because* and *Therefore*. "A newspaper that does not answer these questions is useless," Postman contends. "It is worse than useless. It contributes incoherence and confusion to minds that are already overloaded with information" (p. 94).

Figuring out how to turn a newspaper into a merchant of wisdom is a task that Postman acknowledges is beyond him. He speculates, however, that "in addition to op-ed pages, we will have 'wisdom pages,' in which the deeper questions can be addressed if not answered." Perhaps, he adds, newspapers will scrap their shopworn geographical

structures (local, state, national, foreign), artifacts of a dead era, and instead organize coverage around intellectual or even moral touch points -- "for example, the seven deadly sins of greed, lust, envy, and so on" (p. 97). The top story, in other words, might be about *story*.

Story, Nature, and the News: A Reconciliation

Story, however, is missing from much environmental journalism.

Advice to journalists for reporting on environmental risks almost always casts the reporter not in the role of storyteller, but of peer reviewer for a research journal.

Reporters are encouraged to ask questions such as: Have other researchers replicated these results? Are the results statistically significant? Did the researcher account for all potentially important confounders? (Kamrin, Katz, and Walter, 1994; National Safety Council, 2000; West, Lewis, Greenberg, Sachsman, and Rogers, 2003).

The technical-first approach seeks to make environmental journalism the peer of science journalism. A desire to associate with science's certainty, status and authority might account for this tendency, which Postman (1993) also finds among social scientists. Insofar as the environmental journalist must deal with test data, physiological effects of pollutants, the levels of mercury in the fish, and the interactions of chemicals, the technical details do matter, of course. No story can properly frame an issue without an understanding of the relevant science. However, science journalism exists in a tidier world, one without politics, pressure groups, or victims of pollution. By contrast, the best environmental journalism is, at its core, a documentary of humanity: untidy,

emotional, and political; informed by science but not subservient to it. Science journalism eschews human subjectivity; environmental journalism depends on it.

Implicit in the technical-first approach, however, is the idea that science and democracy are opposite concepts, with science being the more predictable and therefore the superior of the two. Rowan (1995) defines two approaches to risk communication: *technical* and *democratic*. *Technical*, Rowan says, is elitist and fact-based; *democratic* is popular and justice-based (quoted in Flannery, 2000). Note that in Rowan's view, a democratic, popular, and justice-based approach by definition, cannot be fact-based. Shanahan and McComas (1977), embracing technology as superior, contend that "environmentalism [as distinguished from environmental science] has been seen primarily as a sociopolitical issue" (p. 148). They even attack the notion of story as a journalistic weakness. Everyone, they write, sees the difference between *fact* and *story* in journalism. But this distinction, they maintain, is especially emphasized in science coverage, "where 'facts' are so highly prized *and 'stories' widely distrusted*" (emphasis added) (p. 149).

The technical-first approach also can take on a disturbingly inhumane tone, abandoning the inherent morality and active journalistic judgment of Riis' slum investigations, *Harvest of Shame* or *Silent Spring*. A data-driven story can describe the effects of a given amount of lead on a baby's brain, but it does not follow that it can tell a mother that she must accept the blood-lead level that the government allows; nor can data alone reveal the unscientific and undisclosed compromises or even corruption that

might have influenced the government's decision (Loftis and Flournoy, 1993a; Loftis, 2001). Data also fails to comprehend the human suffering that decades of pollution might have wrought, or explore the questions of justice that might be foremost on the people's minds (Loftis and Flournoy, 1993b; 1993c). Only a journalism of humanity can do that.

This, then, leads to the most damning critique of the technical-first model, one that should sound familiar by now: The positivist approach to environmental journalism lacks social and cultural context. It ignores the roles of political and economic power structures in the imposition of environmental risk on the underclass for profit. It is blind to the ways in which bureaucracies, corporations, and interest groups can influence even the most seemingly objective decisions, such as the decision to gather certain types of data and ignore others. Being driven by data, it is inherently wedded to the status quo (according to the accusation that critical theory first made against Dewey's empiricism). It also assumes that scientific revelation leads to sound public policy, oblivious to the myriad ways in which nonscientific aspects of culture shape the creation, formation, transmission, reception, and assimilation of environmental information. In short, the technical-first approach replicates the difficulties of Dewey, ignores the lessons of Carey and Postman, and assumes a powerful, authoritative position for the journalist that seems out of touch with the times.

The quantitative approach to environmental journalism not only robs journalism of its duty to narrate the experiences of humanity; it also has tended to marginalize

coverage of nature -- its ethics, aesthetics, and even its science, much of which seems uncomfortably uncertain to editors who fear telling readers that *we don't know*: How much logging is too much? How many wolves are enough?

By attempting to narrow and reduce nature to measurable terms, technical-first environmental journalism ignores a rich tradition of thought in American philosophy and sociology that closely links the basic elements of nature, society, and communication. The Chicago School's Robert E. Park, himself a reporter turned sociologist, reached back to Darwin to draw a line "between the ecological and the moral orders, between the symbiotic interaction of human beings based on the competition for scarce resources, and the social relations influenced by values *not specifically derived from the quest for survival*" [emphasis added] -- that is, social relations influenced by culture. The relationship between survival-competition and culture, Park believed, was fundamentally an ecological one, analogous to (and perhaps descended from) the relationship between evolution and habitat (Matthews, 1977, pp. 137-138). While the Chicago School became strongly empirical in its approach to learning, Park's purpose was to go from the specific to the general, to exploit the data to construct theories (Bulmer, 1998). This approach (data yields theory) diverges from much conventional empirical research (data proves/disproves theory-derived hypothesis). The models are complex and multi-dimensional, but the point is that Park's linkage of communication to culture, and Darwin's connection of biological structure and function to environment, both derive from the same intellectual orientation.

Much later, Postman also invoked ecological science in order to find a metaphor of how technology changes culture and the media. "Technological change is neither additive nor subtractive," he maintains. "It is ecological ... in the same sense as the word is used by environmental scientists. One significant change generates total change" (1993, p. 18).

Whillock (1999) draws another nexus between nature and communication when he uses physics to find a parallel between news images shown on television and the attractors that are central to chaos theory. In chaos theory, which deals with seemingly random phenomena that occur in apparent defiance of known natural laws, attractors are the points toward which energy or matter tend to move (Oxford, 1999). In Whillock's analogy, images that producers choose to broadcast are "attractors" of viewer perceptions, but they may have no more significance than those rejected for broadcast. In the first Gulf War, Whillock writes, "The news media created their own reality based on the information that was *seen*; little attention was given to what remained *unseen*" (emphasis in original) (p. 236).

Given the importance of culture, this convergence of the concepts of nature, society, and communication hints at the centrality of non-rational but powerful forces in human experience -- forces that science cannot measure, and thus, that technical-first journalism cannot cover. Leopold defines one such force as ritual -- interestingly, decades before Carey and Postman. In a seminal but often overlooked passage, Leopold counts the duck hunter in a cold, wet blind on an autumn morning and the

opera singer onstage as equal participants in the ritualistic reclamation of and communication with an ancient human mythology. "Each is reviving, in play, a drama formerly inherent in daily life," Leopold observes. "Both are, in the last analyses, esthetic exercises" (p. 283). Leopold finds in the transformation of the farmer or shopkeeper into a high-order predator, and in the singer's transformation into a mythic character through costume and lyric and voice, the power of communication with the mysterious. Einstein cautioned against divorcing the intellect from the mysterious, and thus divorcing humanity from nature, story, and song (Holton, 1996). Mystery, Einstein wrote, is the essence of art, music and science; "whoever does not know it and can no longer wonder, no longer marvel, is as good as dead" (quoted in Holton, p. 205). Leopold, Einstein, Carey, and Postman share a common vision of the power of ritual -- that is, of culture and humanity -- in restoring health to a fractured society.

Opportunities exist to create an environmental journalism that restores nature's narrative, one that respects and celebrates ritual as well as rationality. The former reader who has become a skimmer and a clicker might become a reader again. She might find inside the paper not only an affirmation of her existence, but the discovery that she has the starring and dramatic role in *the struggles and wishes of the age*.

CHAPTER 3

METHODOLOGY AND CORPUS

Introduction

The corpus comes from the Web sites of four major programs in environmental journalism education: Michigan State University's Knight Center for Environmental Journalism (ej.msu.edu/index2.php); the University of Colorado at Boulder's Center for Environmental Journalism (www.colorado.edu/journalism/cej); and Columbia University's Earth and Environmental Science Journalism Program (www.ideo.columbia.edu/edu/eesj/curriculum.html), all of which are graduate-level programs; and Lehigh University's undergraduate Science and Environmental Writing Program (www.lehigh.edu/~injrl/sciwrit/index.html). As necessary, I obtained additional information or clarification in interviews or e-mail exchanges with the programs' directors. Although at least 29 universities offer programs or individual courses in environmental journalism (SEJ, 2007), these four programs were chosen because of their national prominence, scope, and longevity. In each case, the background examination included a review of the program's history, academic location, and structure; information on its director or directors; and its overall statement of intent or mission, if any. Academic information included a description of required or core courses; a review of the available electives; and perspectives on the program's interdisciplinarity.

Program 1: Michigan State University, Knight Center for

Environmental Journalism

History, administration, and structure. The Knight Center's mission is "train[ing] student and professional journalists to cover the environment." It is the nation's largest university program in environmental journalism, with about 25 undergraduate and 15 graduate students in Spring 2007 (Detjen, 2007, pers. com.). Primary funding has come from the John S. and James L. Knight Foundation, which established the nation's first endowed chair in environmental journalism in 1994 with the idea of providing intense training to journalists who would specialize in environmental reporting. Additional funding from the Knight Foundation in 1999 created the Knight Center. In 2005, the Knight Foundation granted the center an additional \$2.2 million. That grant, augmented by a \$2 million match from the university, expanded the center's mandate to training general-assignment reporters who might have to cover some environmental stories. The expanded mission also includes a master's degree in journalism with an emphasis on environmental reporting and at least 20 professional outreach events per year. The program also is building an endowment with a goal of \$800,000 by 2010. The Knight Foundation has pledged a match for the endowment of \$3 for each \$1 obtained from other sources, up to a maximum match of \$200,000.

Housed in the College of Communication Arts & Sciences, the Knight Center offers undergraduate and graduate courses. Up to this point in time, the center has not sponsored a degree or certificate program of its own. However, in keeping with the most recent Knight Foundation grant, the center plans to launch its new master of arts

degree in Fall 2007. The center also cooperates in the university's undergraduate specialization program in environmental studies.

The center's director is Jim Detjen, a former environmental reporter for *The Philadelphia Inquirer*. Detjen was the founding president of the Society of Environmental Journalists and is a repeat winner of the Edward J. Meeman Award, the environmental reporting award of the Scripps Howard Foundation National Journalism Awards. Detjen has a bachelor of science degree from Rensselaer Polytechnic Institute and an M.S. from Columbia University. At Michigan State, he holds the Knight Chair in Environmental Journalism and is a tenured full professor.

Undergraduate program: Several undergraduate courses offered by the College of Communication Arts & Sciences are housed in the center, including Environmental Writing, which counts as a core curriculum course; Investigative Environmental Reporting, which is open to non-majors; and computer-assisted reporting, a course not restricted to environmental topics. The program also offers undergraduate courses in Environmental Television Production and Environmental Filmmaking. Environmental TV Production is offered as either an undergraduate or graduate course.

The Knight Center also offers a number of non-traditional undergraduate courses in environmental journalism. They include Wilderness Experience and Environmental Writing, a one-hour course taught during a single weekend campout in which students are exposed to the inspiration of the great nature writers; "Great Lakes Wiki," in which students create an online community to increase public awareness of and involvement

with a regional environmental topic; and Muckraking, a media history course that focuses on the lives and work of the Muckrakers.

Undergraduate journalism majors have the option of completing the 21-hour specialization in environmental studies through the MSU Residential Initiative on the Study of the Environment. Forty-five courses offered by five academic units make up the available choices.

Graduate program. The new master's degree in environmental journalism is a 30-hour program consisting of a thesis/professional project option or an evaluation option. Required courses for all master's degree students in the College of Communications Arts & Sciences include Seminar in Press and Society; Documentary Research in Journalism (qualitative methods); and Quantitative Methods. Students pursuing the thesis or professional project option take three additional semester hours in a graduate-level journalism course; 12 hours in other approved courses; and six hours of thesis or professional project. Students in the evaluation option take nine additional hours of graduate-level journalism courses, 12 hours of other approved courses; and a final oral exam.

In addition to the three required courses, graduate courses in environmental journalism include Advanced Environmental Reporting; and Environmental, Health, and Science Controversies. Other relevant master's level journalism courses are Government and Mass Communication; and Theories of the First Amendment.

Interdisciplinarity: The Knight Center for Environmental Journalism cooperates

with faculty from other academic fields in several interdisciplinary efforts. The center's director, whose background is in newspaper journalism, and a broadcaster/filmmaker jointly teach Environmental TV Production and Environmental Filmmaking. The center's associate director, also a newspaper reporter by background, and an assistant professor of telecommunications jointly teach Great Lakes wiki. Faculty members from various disciplines teach Australia: Media, Environment, and Culture, a study-abroad course. The center's director is also on the faculty of the Health and Risk Communication Center, a program of the College of Arts and Sciences that offers a master of arts in health communication.

Program 2: University of Colorado at Boulder, Center for
Environmental Journalism

History, administration, and structure. The Colorado-Boulder center "seeks to enrich public understanding of environmental issues by elevating the quality of media coverage." Established in 1992, is the largest environmental journalism program in the Western United States. Its Spring 2007 enrollment was 15 students (Ackland, 2007, pers. com).

A major program of the center is the Ted Scripps Environmental Fellowships, funded by the Scripps Howard Foundation. Originally based at the University of Michigan, the fellowships moved to Colorado beginning in 1997 upon the recommendation of an advisory panel on which I served. The fellowships allow five journalists to spend an academic year at the Boulder campus working on independent

study and journalism projects. Fellows are expected to audit two courses each semester during the fall and spring and participate in discussions and seminars. They are not eligible to take courses for academic credit. The program provides a stipend of \$45,000 for the academic year. Fellows do not pay for classes. They must pay their own living expenses, including housing.

The center produces seminars on topics in environmental journalism as another form of outreach to professionals. The center also sponsors an online virtual museum telling the story of a dangerous fire in 1989 at the now-closed Rocky Flats factory for nuclear bomb materials, which was just south of Denver. The museum features multimedia presentations, including videos in which plant workers tell the story.

Home for the center is the College of Journalism and Mass Communication. The center's focus is on graduate studies, chiefly in the form of a master's degree in journalism with an emphasis on environmental journalism. There is no undergraduate program in environmental journalism, but undergraduates may pursue a double major in journalism and environmental studies. For graduate students, the center offers a master of arts degree in journalism with an emphasis on environmental journalism. All students in this master's program also earn the university's interdisciplinary graduate certificate in environmental policy.

Center director Len Ackland was a reporter for *The Des Moines Register* and *The Chicago Tribune* and editor of the *Bulletin of the Atomic Scientists* before joining the university in 1991. He was appointed director of the center upon its founding the

following year. Ackland is a tenured associate professor. He earned his bachelor's degree in history from UC-Boulder and his master's in international relations from Johns Hopkins.

Graduate program. Master's students choose one of two tracks, environmental newsgathering or environmental research. Environmental newsgathering is intended for the student with limited prior educational or professional experience in journalism. Within this option, students further choose between an emphasis in environmental print or environmental broadcasting, each requiring 42 semester hours, or a combination of the two, a 48-hour program. In each case, the required coursework includes the 18 hours that result in the environmental policy certificate. Students who choose the environmental newsgathering option complete a professional project in lieu of thesis.

All students in the environmental newsgathering take newsgathering I, precision journalism, reporting on the environment, science writing, and the press and the Constitution. Print and combination track students also must take newsgathering II and news editing. Broadcasting and combination students add a TV newsgathering course. In addition, all environmental newsgathering students must choose one course from a group that includes media ethics, media ethics and professional practice, and history of mass communication; and another course from a group that includes theories of mass communication, mass media and culture, and media institutions and economics. Additional requirements for broadcast students include one choice from including TV documentary, TV investigation, news team, newsgathering II. Combination track

students must take one course from among TV documentary, in-depth reporting, TV investigation, magazine and feature writing, or news team.

Environmental newsgathering students also take four courses from the graduate environmental policy certificate program.

The professional project for environmental newsgathering students is a professional-level article or series, broadcast production, public-relations campaign, or a similar product. Students must orally defend their projects and provide a written evaluation of the program.

The environmental research option is intended for the journalist seeking professional enhancement or for the student intending to pursue an academic career and/or a Ph.D. It is a 33-hour program that also incorporates the environmental policy certificate. Students who choose the research option complete a thesis on an environmental topic.

In addition to the courses listed above, other journalism graduate courses relevant to environmental journalism include five that explicitly deal with culture (women and popular culture; mass media and culture; critical theories of media and culture; media, myth and ritual; and mass communication, culture); three that concern media structures (media institutions and economics; telecommunication policy; and economic and political aspects of mass communication); and four related to journalism and democracy (mass communication and public opinion; communication, media and concepts of the public; seminar: freedom of expression; and one course mentioned

previously, press and the Constitution.

All students in the research option take theories of mass communication, methods of mass communication research, reporting on the environment, and science writing, and one course from history of media, press and the Constitution, freedom of expression, or media ethics and responsibility. They also take four courses from the environmental policy certificate program and six hours of thesis.

Interdisciplinarity. The environmental policy certificate is an interdisciplinary program that includes 40 courses from across the university. Two journalism courses, reporting on the environment and science writing, are among the certificate's courses. Environmental journalism master's degree students complete the 18-hour certificate by taking those courses and four others from the environmental policy program.

Program 3: Columbia University, Earth and Environmental Science Journalism Program

History, administration, and structure. The goal of Columbia's Earth and Environmental Science Journalism Program is "to train graduates who have both the scientific background and the communications skills to inform the public about discoveries, processes, insights and controversies in earth and environmental sciences, in a manner that is simultaneously stimulating and accurate."

Founded in 1996, the program is a joint effort of Columbia's Lamont-Doherty Earth Observatory, Graduate School of Journalism, and Graduate School of Arts and Sciences/Department of Earth and Environmental Sciences. The program had six

students in the 2006-2007 academic year (Holloway, 2007, pers.com).

Because students in the program earn two master's degrees, an M.A. in journalism and an M.S. in environmental science, applicants must meet the admissions requirements for both degrees. A bachelor's degree in math, science, or engineering is required, with at least one year of undergraduate study in four of five areas (biology, chemistry, geosciences, mathematics, or physics). The program states that other majors may be admitted "in exceptional cases." The requirement of a science background makes the Columbia program unique among virtually all graduate programs in environmental journalism.

Co-directors are Kim A. Kastens and Marguerite Holloway. Kastens directs the science portion. She is a senior research scientist and adjunct full professor in the Lamont-Doherty Earth Observatory and the Department of Earth and Environmental Sciences. She holds a B.S. in geology and geophysics from Yale University and a Ph.D. in oceanography from the Scripps Institute of Oceanography.

Holloway, director of the journalism portion, is a longtime writer and editor for numerous publications, including *Smithsonian* magazine. Her B.A. is from Brown University and her M.S. is from the Columbia Graduate School of Journalism.

Graduate program. The program requires five semesters of intensive work, including two semesters each of science and journalism; the execution of an approved scientific research project; and the completion of a work of science or environmental journalism. During each of the first two semesters, all students attend an earth science

colloquium and take a course entitled case studies in earth and environmental science journalism. The first semester also includes a choice of environmental reporting or science narratives, plus three science courses. The second semester also includes master's research and two science courses.

The science research project, completed in the summer after the first two semesters, requires a 10-page paper and an oral defense.

In the second year, students take five conventional graduate journalism courses during the fall semester: reporting and writing; skills of the journalist; critical issues in journalism; journalism, the law and society; and master's project. Spring semester requirements include the advanced seminar in science reporting and writing; a choice of a media workshop; an additional journalism or science elective; and master's project. Columbia's media workshops are practicum courses that include a variety of opportunities in broadcast production, magazine writing or production, new media production, newspaper reporting, or news release writing.

Interdisciplinarity. The Columbia program is interdisciplinary in that the science and journalism are hybridized into a new entity that borrows from each field. However, the program allows no studies in fields outside of science and journalism.

Program 4: Lehigh University, Science and Environmental Writing

Program

History, administration, and structure. The goal of Lehigh's program is to train students "to write about pure science and applied scientific research, technology,

engineering, environment, medicine and health for a variety of audiences ranging from the general public to scientists and engineers."

The Lehigh program, with 12 students in 2006-2007 (Friedman, 2007, pers. com.) is among the oldest in the country. It was founded in 1977 and graduated its first student the following year. It is also unique in being an undergraduate-only program. Lehigh does not currently have a graduate program in journalism or mass communications. The program's home is the Department of Journalism and Communication.

Sharon M. Friedman is the center's founding director. Friedman's primary area of research interest is risk communication, including the alignment of scientific information, special-interest spin, and public perceptions. Friedman holds a B.A. in biology from Temple University and an M.A. in journalism from Penn State. She is a tenured full professor and former department chair.

Undergraduate program. Journalism students at Lehigh may major in science and environmental writing, while students in other fields may take an abbreviated program as a minor. The major requires 34 hours of journalism or communication and at least 16 hours of science or engineering. All majors take an introductory journalism course; politics of science; environment, the public and the media; editing; publication design; reporting; and an internship. Majors complete their requirements by choosing either a second basic journalism course or a science writing practicum; basic science and technical writing or news writing; controversies or a senior seminar; and one

additional course in journalism or communication.

The science and environmental writing minor is a 17-hour program that includes either introductory journalism or science writing practicum; basic science and technical writing or news writing; politics of science; environment, the public and the mass media; and controversies. The minor does not include an additional science requirement, since it is assumed that students choosing this option are majoring in science or a related field.

Several courses deserve special mention. One titled Controversies equips students to sort through complex and contradictory claims regarding science and the environment, with attention to "ethical and social responsibilities and interactions of scientists, journalists and the public." Politics of Science deals with the interaction, tension, and frequent conflict between government and science, including political interference with science. Other courses include Basic Risk Communication and Assessment; and Web-based Health Communication. In addition, junior or senior students can take part in a science writing field program that allows them to attend professional scientific conferences as fully accredited journalists, and to write about the research projects of Lehigh scientists.

Interdisciplinarity. Because it is for undergraduates only, the Lehigh Science and Environmental Writing Program relies on the university's core curriculum for the non-journalism portion of its students' education. However, the program's journalism courses, with their emphasis on the social role of environmental journalism, draw

heavily from political science, sociology, and related fields.

CHAPTER 4

RECOMMENDATIONS, DISCUSSION, AND CONCLUSIONS

Recommended Courses: Graduate Introductory Course in Environmental Journalism

And Additional Suggested Courses

The aim of this study is to join research into the structural and philosophical challenges facing journalism and the practical requirements of a curriculum. The following outline of a graduate introductory course in environmental journalism and additional suggested courses take Carey's ritual and Postman's storytelling as their framework. The introductory course includes all of the necessary orientation into science and data-driven research that the environmental journalist needs, but it also focuses on training the student to recognize and value the vast diversity of human perspectives that the journalist will encounter. Through assigned readings, the course exposes the student to a rich and diverse body of knowledge about the scientific and cultural aspects of the human relationship to the environment. By completing a number of creative and cooperative research projects, the student is expected to take major responsibility for the learning experience, in keeping with the pedagogical practices of active learning and conversation.

The other courses that might logically follow this introductory course could form the curriculum for a certificate program or, with expansion, a master's degree program in environmental journalism. Such a program would present important opportunities for interdisciplinarity; it could be sponsored by a journalism department alone, or in

conjunction with philosophy, environmental science, radio-television-film, creative writing, or any of a number of other departments.

Graduate Introductory Course in Environmental Journalism. The purpose of this course is threefold:

1. To train students in the technical skills and knowledge they will need in order to cover basic environmental stories;

2. To give them the philosophical background they will need in order to understand the tensions and differences between scientific and cultural ways of seeing; and

3. To orient them to the importance of and the potential for environmental journalism as a force for the renewal of democratic and journalistic optimism.

This course's unique approach: The dominant model in environmental journalism education is to teach technical skills and the use of governmental and scientific information. In its narrowest context, the traditional approach is empirical and becomes an unquestioning adjunct to scientific positivism, ignoring the role of culture in framing inquiries and answers. My own experience shows that official information on the environment is as subject to framing and other forms of bias as is any other form of communication; that official conclusions about environmental safety and acceptable risk are frequently not based on complete science, and that the usual discounting of community concerns as unscientific is often grounded in different cultural norms and sometimes is simply wrong. This course strengthens the dominant model by adding two

often-missing elements:

1. The ability to recognize when official or unofficial information is wrong, incomplete, misleading, and/or politically or culturally influenced; and
2. An awareness of different but still valid ways of viewing a given problem from different personal or cultural perspectives.

Pedagogy: The course is designed to rely on a teaching style adapted from active and conversational learning and reflection. This suggests an emphasis on learning by doing and on making students responsible for their own learning to the maximum practical extent. The instructor serves as mentor and facilitator more than as a primary source of information (Ramsey, 1993; Reeher and Cammarano, 1997; Hammond, 2001; Latucca, 2006).

Each class module except Module 1 involves a team project in which students will work together to find and present information on the relevant topic. The instructor will help the students synthesize the presentations into a coherent view of the topic. The students will use the insights from the presentations in crafting an individual term project, which will be a work of environmental journalism for print, broadcast, Web, or other media.

It is important that the class be held in a computer-equipped classroom, since most of the lessons will include the correct use of online resources.

The class will also take one or more field trips to campus locations and one trip to a local ecological preserve. Optional Saturday trips or activities are possible. Guest

speakers will be invited to address particular topics.

Incorporation of technical, cultural, and democratic concepts: Each module includes readings, examples, and discussions of the scientific and legal bases of environmental decisions; the cultural perspectives that different groups bring to a given problem; and the implications for democracy of the different ways of viewing and reporting on the problem. During the first meeting, for example, students will leave the classroom and go outside, where they will be asked to use their powers of observation and deduction to view the world they see around them through different eyes: those of an engineer, an urban planner, a naturalist, or a police officer, for example. The goal of the exercise will be to show how the objective versions of reality that we take for granted are influenced by our own worldviews, which in turn can be the products of cultural or institutional orientation; and that we must be open to different interpretations of reality if we are to infuse journalism and democracy with new life and new ideas.

Text: The text will come from selected readings such as those described below.

Requirements: Students will take part in a team effort in four of the five modules of the class. Each team effort will involve the location and synthesis of course-relevant information and presentation of that information to the class. In addition, each student will produce an individual journalism project that should reflect the knowledge and insights gained from the team presentations.

Structure: The 15-week course is divided into five modules of varying lengths.

The modules are: Brief History of Environmental Concerns; Pollution and Society: Air, Water, Toxic Waste, and Environmental Justice; Chemicals and Human Health; Macroenvironmental Problems: Global Warming, Energy, Biodiversity Loss, and Population; and Wildlife, Nature Writing, and Nature Philosophy.

1. Brief history of environmental concerns: Week 1.

In this module, students take a rapid tour through 250 years of American environmental history to give them a coherent frame of reference for the large amount of information they must assimilate in the course. As early as the 1770s, intensive monoculture of tobacco and cotton had begun to exhaust American cropland, triggering mass migrations of agricultural populations and accompanying environmental and cultural changes. Rapid urban growth and industrialization in the 1800s led to significant problems with air and water quality and infectious diseases. By the mid-1800s, the first concerns over the extirpation of wildlife species had arisen, and along with them the emergence of a conservation ethic. The late nineteenth and early twentieth centuries saw extreme deforestation in the southern Appalachians and soil erosion in the Midwest that again led to widespread land-use changes and cultural disruptions. Urban concerns were growing, too, as shown by Jacob Riis' groundbreaking reporting on pollution threats to New York's water supply. The post-World War II years were characterized by a dramatic increase in chemical production and concerns about human exposures. The advent of the modern environmental movement since 1962 has come at the same time as the recognition of global concerns such as global warming,

ozone depletion, large-scale habitat losses, and mass extinctions. Meanwhile, using the civil rights movement as its model, the movement for environmental justice has led to increased awareness of the relationship between pollution, poverty, and race.

Examples of readings include excerpts from Riis, *How the Other Half Lives*; Shabecoff, *A Fierce Green Fire*, and Ponting, *A Green History of the World*.

2. Pollution and society: Air, water, toxic waste, environmental justice: Weeks 2-6.

Pollution is a byproduct of modern methods of production and transportation. Society provides free or discounted means of pollution disposal into the atmosphere, public waters, or the land, allowing for lower prices and the transfer of environmental costs to the general public. Laws govern the disposal of most pollutants; journalists must have a thorough knowledge of the systems of regulation. They also must understand the nature and health effects of the most common or important pollutants. Finally, an examination of the environmental justice movement serves as a platform for considering the sociopolitical and cultural assumptions that underlie the dominant environmental systems and attitudes, even influencing the selection of public health standards.

Readings include Web sites on air, water, and toxic waste regulation and monitoring, including EnviroFacts and the Toxic Release Inventory; EPA Risk Screening Environmental Indicators; relevant news stories; excerpts from Bullard, *Unequal Protection* and *Dumping in Dixie*, and related works.

Examples of possible team projects: Find local air pollution levels through online sources and discuss difference between government, science-based, and community-based perspectives; determine the highest volume and most dangerous air releases in the local area, and explain why they might not be the same; identify through various sources the most and least polluted streams in the region, and explain gaps in data; locate toxic waste sites in the community and describe public health risks, based on government data, and consider possibilities for data error; find local examples of environmental justice conflicts and explain in cultural terms.

3. Chemicals and human health: Week 7.

The post-World War II years have been the chemical era, from the development of DDT to the invention of tens of thousands of synthetic chemicals. Although the federal government requires testing of new chemicals in commercial use, the vast majority of existing chemicals have not been tested. A large family of chemicals disrupts the endocrine system, upsetting natural gender distinctions, just as Carson predicted in *Silent Spring*. Chemical pollution of the environment is largely regulated, but chemical contamination in the human body is not; numerous studies show that every American carries a burden of synthetic chemicals, many of which have unknown health effects. Western Europe has been much more aggressive on chemical regulation than the United States. For example, the European Union has weighed the research on brominated flame retardants, a class of chemicals resembling dioxin, and has taken strong action to phase them out, while the United States, with access to the same

studies, has taken no action. Meanwhile, science is beginning to discover the inadequacies of traditional paradigms for measuring chemicals' health effects. The emerging field of epigenetics, for example, is discovering how exposure to one generation without visible health effects can result in health effects on future generations.

Readings include excerpts from Carson, *Silent Spring*; Colburn et al., *Our Stolen Future*; National Academy of Sciences reports; online resources; relevant news stories.

Examples of possible team projects: Describe the state of scientific knowledge of brominated flame retardants and review news coverage; examine studies of Americans' body burdens of chemicals and identify opportunities for journalistic enterprise; find any confirmations or refutations of *Silent Spring* since its publication, and consider their accuracy; find research on differences in chemical exposures based on economic, geographic, or racial factors, and think of ways a journalist could report on such findings.

4. Macroenvironmental problems: Global warming, energy, biodiversity loss, population: Weeks 8-11.

The largest-scale problems often require the largest-scale solutions, but not always; central-government solutions to population growth, for example, probably are less effective than neighborhood- or village-based approaches. Yet it often takes global awareness to generate the governmental or private funds required to assist local actors. The four elements of this module will be examined separately to allow clarity of

analysis, but they also will be presented as a whole to place them in their proper context as different manifestations of the same problem: human impact on the biosphere. The topics include some that are very much in the news today – global warming and energy – and some that continue to cause major environmental damage but seem to have been largely forgotten: biodiversity loss and population. Each topic has been the subject of strong disagreement, sometimes based on science, sometimes based on a politically, economically, or culturally charged reading of science. For each topic, students will consider what we know and what we don't know, and how interested parties have attempted to spin that knowledge or lack of it to their advantage.

Readings include excerpts from Flannery, *The Weather Makers*; Intergovernmental Panel on Climate Change, Fourth Assessment; Web resources on energy, including TXU and Rocky Mountain Institute; Wilson, *Biodiversity*; Ehrlich and Ehrlich, *The Population Explosion*; World Watch Institute, *State of the World* series.

Examples of possible team projects: Imagine ways to construct a coherent story, using narrative techniques, that treats global warming, energy, biodiversity loss, and population as a unified theme; examine changes in language in the IPCC's four periodic assessments of global warming and consider what those changes indicate; compare environmental impact and hidden costs of available energy alternatives; find trends in news media coverage of deforestation and attempt to explain the cycles; compare worst- and best-case predictions on population change and determine who

was right and who was wrong.

5. Wildlife, Nature Writing, and Nature Philosophy: Weeks 12-15.

From Thoreau's *Walden* to McKibben's *The End of Nature*, Americans have sought to find and explain their spiritual and philosophical connections to the natural world. These efforts have been of enormous importance to the development of environmental journalism; much nature writing has crossed over into journalism, and vice versa. Rachel Carson, for instance, was both an exemplary journalist and a gifted nature writer. At the same time, not all concern about nature has been poetic or philosophical; some has involved political, social, and economic conflicts. Threats to endangered species, especially such iconic creatures as the bald eagle, have provided ample opportunities to educate the public about the glories of nature while also performing tough-minded investigative reporting. This module helps students identify historical and philosophical themes that can inform their reporting today, while letting them explore the creation of a new journalistic type that pays as much attention to the symbolic and cultural importance of nature as it does to the details of official policy decisions – in other words, a nature journalism that respects story and ritual as well as fact.

Readings include excerpts from Jefferson, *Notes on the State of Virginia*; Bartram, *Travels*; Thoreau, *Walden*; Twain, *Life on the Mississippi*; Turner, *The Frontier in American History*; Leopold, *A Sand County Almanac*; Muir, *My First Summer in the Sierra*; Burroughs, *Ways of Nature*; Douglas, *The Everglades: River of Grass*; Carson,

The Edge of the Sea and *Silent Spring*; Graves, *Goodbye to a River*; and McKibben, *The End of Nature* and *Hope, Human and Wild*.

Examples of possible team projects: Outline a possible narrative that would describe the natural world as found today on the campus; compare the natural world as perceived by Bartram and McKibben; find a likely candidate for the next major fight over endangered species, and explain the scientific and cultural positions in that fight; find out whether nature-based reporting in recent years has tended to be more scientifically or culturally based, and identify opportunities for bridging that gap.

Additional Suggested Courses. The potential for additional courses in environmental journalism is boundless, especially when journalism's scope expands to include multimedia and interdisciplinarity. Additional skills classes, such as environmental reporting for broadcasting or the Web, are obvious choices and have been explored sufficiently elsewhere to make repetition here unnecessary. By contrast, I suggest five additional courses that might constitute a logical follow-up to the approach of the introductory course outlined above.

1. Investigative Environmental Reporting: a course using the traditional tools of investigation combined with the often-discounted knowledge base of community sources -- neighborhood opinion leaders, elders, and others -- to produce newly invigorated types of investigative stories.

2. Narrative Environmental Journalism: Exploring how to develop strong story lines in long-form environmental journalism and how to use narrative techniques to

make stories relevant.

3. History and Ethics of Environmental Journalism: An examination of how the dominant paradigms of environmental journalism developed, and of how society and nature shaped the journalist while the journalist shaped society and perceptions of nature. This course could be taught in conjunction with philosophy faculty.

4. Nature Writing for the 21st Century: A course that attempts to adapt nature writing to the society we now inhabit: one in which true wilderness experience is increasingly reserved for the wealthy, while the suburban nature that most people encounter is increasingly fragmented. The course examines readers' use of nature writing as urban escape. Building upon concepts such as biophilia, which holds that people have an innate psychological need for nature, the course considers the potential for developing a new style of nature writing that could rebuild broken links between urban dwellers and the natural world.

5. Environmental Journalism in a Wiki World: How the interactivity and the reader-empowerment of the online world are rapidly eroding the traditional sender-recipient relationship and how environmental journalism, with its combination of empirical and cultural imperatives, is particularly challenged, while also being well suited to take advantage of new interactive possibilities. The course includes training in observing the appropriate caveats of reliability, etc., in the use of online sources.

Discussion

The four existing environmental journalism programs examined here represent a

range of dramatically different approaches. Columbia's program places supreme faith in science's ability to resolve the conflicts of the modern world. It assumes that scientific understanding has been the missing element in many public policy discussions, and that only journalists with a high degree of scientific training are qualified to mediate these conflicts for the public at large. The program also presumes the factual reliability of science (if only people understood science, all people would reach a single, correct conclusion about any given problem). The approach leaves little room for doubt or different viewpoints and pays no heed to the challenges to scientific positivism that have characterized much of the intellectual ferment of the past half-century. Furthermore, the Columbia approach is strictly top-down; its stated purpose is to transmit information from scientists to the masses, not to engage the masses in a dialogue about matters that directly affect their lives. Without question, there is a place for strong scientific understanding in environmental journalism, but the need for an equally strong cultural and social element to public debate prevents Columbia's program from serving as a mainstream model.

The Michigan State approach, rooted more firmly in a traditional graduate level journalism approach, is a more adaptable model. The Knight Center's deep pockets have allowed it to take on a strong outreach role, offering boot camps, seminars, and international training. The curriculum also shows high creativity in such courses as the campout for nature writing, the "Great Lakes wiki," and the Muckrakers. The lack of undergraduate offerings in environmental journalism is addressed in part by the

availability of a double major in journalism and environmental studies. Many of the available environmental studies courses are in hard sciences, but others are social science courses that help to put science in its broader cultural context. One hazard is that a double major journalism student might live in two silos, science and journalism, without the synthesis and coherence that the graduate program supplies.

The UC-Boulder environmental journalism master's degree program is similar to Michigan State's in many ways, with an important difference: It is integrated into the university's interdisciplinary certificate in the environment. This approach, which increases the hour requirements for the master's degree, exposes the student to a wide range of hard sciences and social sciences, many of which seek to add a cultural dimension to scientific issues. In addition, the certificate takes advantage of UC-Boulder's strength in natural resource science and, within the Department of Philosophy, environmental ethics. The Ted Scripps Fellowships also enrich the campus by adding interested professionals to the mix, and improve the profession by letting the professionals learn in a fertile environment.

Lehigh's program is noteworthy not only for its undergraduate nature, but for its merger of scientific and social viewpoints. No other program studied for this paper reveals to undergraduates the secret, long known to environmental journalism professionals, that government sometimes twists science to serve political ends; or devotes a course to teaching the "ethical and social responsibilities and interactions of scientists, journalists and the public." Although larger programs have a natural interest

in focusing on graduate studies, they would do well to adopt elements of Lehigh's program for either undergraduate or graduate curricula.

Finally, the introductory course and additional courses that I propose attempt to help graduate students achieve a coherent view of how science, policy, and culture all must come together in equal portions to inform society about matters of life and death. Alone among all the players in this drama, journalism can leap disciplinary boundaries, offer critiques informed by the insight of a skilled reporter, and publish the resulting narrative, it is hoped, without fear or favor. The approach is to build upon the scientific and legal bases of current environmental policies by adding alternative viewpoints, welcoming new voices, and guiding the reader safely through what would otherwise be a junkyard of disjointed data.

Conclusions

Grave dangers await any society that abandons all notions of fact and truth. Consider the following passage:

We stand at the end of the Age of Reason. ... There is no truth, in either the moral or the scientific sense. ... Science is a social phenomenon. ... That which is called the crisis of science is nothing more than [that] the gentlemen are beginning to see on their own how they have gotten on the wrong track with their objectivity and their autonomy (quoted in Holton, 1996, p. 31).

The speaker was Adolf Hitler. Rather than liberating humanity from the chains of elites,

priests and professors, here postmodernism is seen "running rampant ... hither and thither in random flights of mischief" (Simons and Billig, 1994, p. 6).

Neither, however, is the opposite true: Science cannot unlock every mystery or settle every argument. Even some scientists are skeptical of science's presumption of omniscience. Aldo Leopold, best known as the American exponent of a philosophy of wilderness and a land ethic, was also among the premier ecological scientists of the 20th century. Despite such scientific bona fides, Leopold could foresee no day when science would solve the last riddle. "The ordinary citizen assumes today that science knows what makes the community tick," he writes. "The scientist is equally sure that he does not. He knows that the biotic mechanism is so complex that its workings may never be fully understood" (1966, p. 241).

Uncertainty about fact or truth poses obvious problems for journalism, especially the positivist journalism that is so characteristic of environmental reporting. A middle way pays due respect to learning, but also accounts for the mediating and formative roles of society and culture. Rather than offering a cold and restrictive empiricism on the one hand or mayhem and moral drift on the other, this middle way could put science on a distinctly human scale, putting aside questions about "how to define words like 'truth' or 'rationality' or 'knowledge'" in favor of deciding "what self-image our society should have of itself" (Rorty, 1991, p. 28).

The crucial tension for journalism, then, is between report and ritual. Moore (1999) describes this journalistic flux as a struggle between reporting, the traditional

view, and storytelling, as suggested by Rorty and evidenced by the narrative techniques and composite characters of New Journalism (p. 13). Clearly, Carey's ritual model harmonizes with Rorty's storytelling; Postman insists that story is a necessary nutrient for a sane society. In a pluralistic world, however, the stories are necessarily small, to use Jean-Francois Lyotard's term (Saugstad, 2000), yielding in Moore's view "only minor insights" because there are no criteria for judging one against the other (Moore, 1999, p. 12). Complete pluralism, in any event, means that all stories are equal. Yet small stories, Moore contends, supply only "short-lived truths" (p. 13). The fragmentation of media has created an endless supply of small truths.

However, I believe that Moore is wrong about small stories yielding only fleeting truths. He assumes that the loss of the grand narrative leaves only the inconsequential, but no culture's beliefs involve only large truths. The collective thing we know as the village is shaped out of the smaller inner worlds of people, which become large when shared around the campfire.

How would a journalism of small stories, of human rituals, coexist with the journalism of the dominant structure? Imagine a set of typical environmental concerns: a fight over logging, a polluted neighborhood, or an endangered rainforest. One journalist might interview the president of the timber company, or the head of the pollution enforcement agency, or a biology professor studying the rainforest. That is the journalism of power and, some would add, domination.

Another journalist might take a different tack and listen to an elder remembering

when the big trees stood, or a young mother worrying about toxic waste harming her child, or a shaman telling the story of how the world was made. That is the journalism of ritual, story, and humanity.

Each style has its contribution to make. The big story can expose the workings of power, offering corrective revelations that are vital to the health of democracy. Yet the small story, crystallizing human experience in one life, one voice, one face illuminated by the firelight, is the one we might remember. In such small realities -- in the faces of Dorothea Lange's sharecropper mother and children -- the world's narrative is not lost, but made whole again.

The village campfire gave rise to all human culture; when we leave it behind, we forget our humanity and surrender our collective large truths to others who might not love them. A journalism that respects and celebrates the ritual community of those small inner worlds would hold the power of restoration for democracy, the village, and itself.

APPENDIX

SAMPLE SYLLABUS FOR THE GRADUATE INTRODUCTORY COURSE

Introduction to Environmental Journalism

This is a graduate journalism course designed to provide basic orientation and practice in environmental reporting, one of the most fascinating and important areas of journalism today. The course combines traditional reporting techniques and recognition of the role of culture in shaping our views of the environment, both the human and natural worlds. Students will learn the fundamentals of issues such as pollution, global warming, and nature conservation, as well as the history of environmental journalism and nature writing.

By the semester's end, students will understand how the objective versions of reality that we take for granted are influenced by our own worldviews, which in turn can be the products of cultural or institutional orientation; and that we must be open to different interpretations of reality if we are to infuse journalism and democracy with new life and new ideas.

Prerequisites: Communication theories and studies, plus any required leveling courses. Students also are encouraged to take qualitative methods and quantitative methods before taking this class. Non-journalism majors may take the course with the instructor's approval.

Coursework: The class consists of five modules:

- * Brief History of Environmental Concerns (Week 1);
- * Pollution and Society: Air, Water, Toxic Waste, and Environmental Justice

(Weeks 2-6);

- * Chemicals and Human Health (Week 7);

- * Macroenvironmental Problems: Global Warming, Energy, Biodiversity Loss, and Population (Weeks 8-11);

- * Wildlife, Nature Writing, and Nature Philosophy (Weeks 12-15).

Text: Readings to be provided.

Assignments: Students will prepare a team research project for each module except Brief History. In addition, each student will prepare an individual work of environmental journalism for print, broadcast, Web, or other media as a semester project. The instructor will guide students in selecting and executing both the team and individual projects.

Extras: The class will take a field trip to a local nature preserve during a class period late in the semester. Some optional Saturday activities are possible. Guest speakers will be invited.

Grading:

- * Team projects: 15 percent each (60 percent total);

- * Individual project: 40 percent.

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